

7th Grade FSA Countdown

Customary Conversions

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile = 1,760 yards

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 pound = 16 ounces
1 ton = 2,000 pounds

Metric Conversions

1 meter = 100 centimeters
1 meter = 1000 millimeters
1 kilometer = 1000 meters

1 liter = 1000 milliliters

1 gram = 1000 milligrams
1 kilogram = 1000 grams

Time Conversions

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 year = 365 days
1 year = 52 weeks

Formulas

$$A = bh$$

$$A = lw$$

$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2}h(b_1 + b_2)$$

$$V = Bh$$

$$V = \frac{1}{3}Bh$$

$$SA = Ph + 2B$$

$$SA = \frac{1}{2}P\ell + B$$

Test Length

This table provides the approximate range for the number of items on each test.

Grade/Course	Number of Items
3	60–64
4	60–64
5	60–64
6	62–66
7	62–66
8	62–66
Algebra 1	64–68
Algebra 2	64–68
Geometry	64–68

Note: Approximately 6–10 items on all of the tests listed above are experimental (field test) items and are included in the ranges above but are not included in students' scores.

Sessions and Times

Grade/Course	Administration Time	Number of Sessions*	Computer-Based in 2015
3	160 minutes	2	No
4	160 minutes	2	No
5	160 minutes	2	Yes
6	180 minutes	3	Yes
7	180 minutes	3**	Yes
8	180 minutes	3**	Yes
Algebra 1	180 minutes	2**	Yes
Algebra 2	180 minutes	2**	Yes
Geometry	180 minutes	2**	Yes

*All sessions are administered over two days.
 **Session 1 is the non-calculator portion of each assessment.

Percentage of Computer-Based Test Composed of Technology-Enhanced Items

Grade/Course	Percentage Range
Grades 5-8 Mathematics*	25%–50%
Algebra 1, Geometry, Algebra 2 EOCs	40%–60%

* Grades 3 and 4 Mathematics tests, once computer based, will also be composed of 25%–50% TEIs.

Grade 7 Mathematics Standards Coverage

Reporting Category	Standard	% of Test
Ratio and Proportional Relationships	MAFS.7.RP.1.1	25%
	MAFS.7.RP.1.2	
	MAFS.7.RP.1.3	
Expressions and Equations	MAFS.7.EE.1.1	21%
	MAFS.7.EE.1.2	
	MAFS.7.EE.2.3	
	MAFS.7.EE.2.4	
Geometry	MAFS.7.G.1.1	23%
	MAFS.7.G.1.2	
	MAFS.7.G.1.3	
	MAFS.7.G.2.4	
	MAFS.7.G.2.5	
	MAFS.7.G.2.6	
Statistics and Probability	MAFS.7.SP.1.2 Also Assesses MAFS.7.SP.1.1	16%
	MAFS.7.SP.2.4 Also Assesses MAFS.7.SP.2.3	
	MAFS.7.SP.3.5	
	MAFS.7.SP.3.6	
	MAFS.7.SP.3.7 Also Assesses MAFS.7.SP.3.8	
The Number System	MAFS.7.NS.1.1	15%
	MAFS.7.NS.1.2	
	MAFS.7.NS.1.3	
Total Standard Groupings	21	100%

Florida Standards Assessments Test Item Descriptions

The Florida Standards Assessments (FSA) are composed of test items that include traditional multiple-choice items, items that require students to type or write a response, and technology-enhanced items (TEI). Technology-enhanced items are computer-delivered items that require students to interact with test content to select, construct, and/or support their answers. Currently, there are nine types of TEIs that may appear on computer-based assessments for FSA Mathematics.

Technology-Enhanced Item Types – Mathematics

- 1. Editing Task Choice** – The student clicks a highlighted word or phrase, which reveals a drop-down menu containing options for correcting an error as well as the highlighted word or phrase as it is shown in the sentence to indicate that no correction is needed. The student then selects the correct word or phrase from the drop-down menu. For paper-based assessments, the item is modified so that it can be scanned and scored electronically. The student fills in a circle to indicate the correct word or phrase.
- 2. Editing Task** – The student clicks on a highlighted word or phrase that may be incorrect, which reveals a text box. The directions in the text box direct the student to replace the highlighted word or phrase with the correct word or phrase. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 3. Hot Text** –
 - a. Selectable Hot Text**–Excerpted sentences from the text are presented in this item type. When the student hovers over certain words, phrases, or sentences, the options highlight. This indicates that the text is selectable (“hot”). The student can then click on an option to select it. For paper-based assessments, a “selectable” hot text item is modified so that it can be scanned and scored electronically. In this version, the student fills in a circle to indicate a selection.
 - b. Drag-and-Drop Hot Text**–Certain numbers, words, phrases, or sentences may be designated “draggable” in this item type. When the student hovers over these areas, the text highlights. The student can then click on the option, hold down the mouse button, and drag it to a graphic or other format. For paper-based assessments, drag-and-drop hot text items will be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 4. Open Response**–The student uses the keyboard to enter a response into a text field. These items can usually be answered in a sentence or two. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 5. Multiselect** – The student is directed to select all of the correct answers from among a number of options. These items are different from multiple-choice items, which allow the student to select only one correct answer. These items appear in the online and paper-based assessments.
- 6. Graphic Response Item Display (GRID)**- The student selects numbers, words, phrases, or images and uses the drag-and-drop feature to place them into a graphic. This item type may also require the student to use the point, line, or arrow tools to create a response on a graph. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 7. Equation Editor** – The student is presented with a toolbar that includes a variety of mathematical symbols that can be used to create a response. Responses may be in the form of a number, variable, expression, or equation, as appropriate to the test item. For paper-based assessments, this item type may be replaced with a modified version of the item that can be scanned and scored electronically or replaced with another item type that assesses the same standard and can be scanned or scored electronically.
- 8. Matching Item** – The student checks a box to indicate if information from a column header matches information from a row. For paper-based assessments, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.
- 9. Table Item** – The student types numeric values into a given table. The student may complete the entire table or portions of the table depending on what is being asked. For paper-based assessment, this item type may be replaced with another item type that assesses the same standard and can be scanned and scored electronically.

7th Grade Standards		Review Week									IP Semester	# times reviewed
Domain	Standard	1	2	3	4	5	6	7	8	9		
<i>Equations & Expressions</i> (21%)	7.EE.1.1	X				X					1	10
	7.EE.1.2		X			X					1	10
	7.EE.2.3		X						X		1	10
	7.EE.2.4			X						X	2	10
<i>Geometry</i> (23%)	7.G.1.1				X		X				2	10
	7.G.1.2		X				X				1	10
	7.G.1.3		X				X				1	10
	7.G.2.4				X		X				1	10
	7.G.2.5				X			X			1	10
	7.G.2.6				X			X			2	10
<i>Number System</i> (15%)	7.NS.1.1	X				X					1	10
	7.NS.1.2	X				X					1	10
	7.NS.1.3	X				X					1	10
<i>Ratio & Proportions</i> (25%)	7.RP.1.1			X				X			2	10
	7.RP.1.2			X				X			1	10
	7.RP.1.3			X				X			2	10
<i>Statistics & Probability</i> (16%)	7.SP.1.1									X	2	5
	7.SP.1.2									X	2	5
	7.SP.2.3									X	2	5
	7.SP.2.4									X	2	5
	7.SP.3.5								X		2	5
	7.SP.3.6								X		2	5
	7.SP.3.7								X		2	5
	7.SP.3.8								X		2	5

Day 1

1. **7.EE.1.1**

Which expressions below are equivalent to $2(2x + 1)$?

Select all that apply.

- A. $4x + 2$
- B. $2(1 + 2x)$
- C. $2(2x) + 1$
- D. $2x + 1 + 2x + 1$
- E. $x + x + x + x + 1 + 1$

2. **7.NS.1.1**

On the number line below, the numbers a and b are the same distance from 0. What is $a + b$? Explain how you know.



3. **7.NS.1.2**

Place a check in the box next to all the expressions given below that are equivalent to -7 .

- $-\frac{14}{2} \times \frac{7}{7}$
- $7 \times -1 \times -1 \times -1$
- $-4 \times \frac{7}{4}$
- -7×-1
- 7^{-1}

4. **7.NS.1.3**

Jason's checking account balance was \$345. Jason withdrew \$160 three times. What is his current balance?

- A. $-\$480$
- B. $-\$135$
- C. $\$135$
- D. $\$185$

5. **7.EE.1.1**

Mario has read two less than four times the number of books Tonya has read. What factored expression represents the number of books, x , Mario has read?

- A. $4x - 2$
- B. $2(x - 1)$
- C. $4(x - 2)$
- D. $2(2x - 1)$

Day 2

1. **7.EE.1.1**

In the following equation, a and b are both integers.

$$a(3x - 8) = b - 18x$$

What is the value of a ?

What is the value of b ?

2. **7.NS.1.1**

Mount Ojos del Salado is the highest mountain in Chile, with a peak at about 6900 meters above sea level.

The Atacama Trench, just off the coast of Chile, is about 8100 meters below sea level (at its lowest point).

What is the difference in elevations between Mount Ojos del Salado and the Atacama Trench?

3. **7.NS.1.2**

Evaluate the following expression.

$$2 + (3 - 2 \times 2) \times 1$$

4. **7.NS.1.3**

The table shows prices for a local bowling alley.

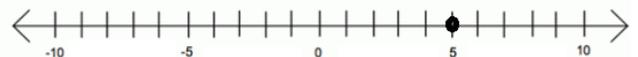
BOWLING ALLEY PRICES

Item	Price
Shoe rental	\$2.75
One game of bowling	\$2.50
Small soda	\$0.95
Large soda	\$1.50
Nachos	\$1.75

Valerie rented shoes, bowled 4 games, and bought 2 orders of nachos. She used a coupon for half off the price of food. What was the total cost, before tax, of Valerie's trip to the bowling alley?

5. **7.NS.1.1**

The value of 5 is plotted on the number line below. Plot another point on the number line that is 10 units away from 5.



Name: _____

7th Grade Math: Week 1 FSA Countdown

Date: _____

Period: _____

Day 3

1. **7.EE.1.1**

Shannon says the two expressions below are equivalent. Is she correct? Explain why or why not?

$$2(3a - 2) + 4a \text{ and } 10a - 2$$

2. **7.NS.1.1**

Mount Ojos del Salado is the highest mountain in Chile, with a peak at about 6900 meters above sea level.

The Atacama Trench, just off the coast of Chile, is about 8100 meters below sea level (at its lowest point).

Is the elevation halfway between the peak of Mount Ojos del Salado and the Atacama Trench above or below sea level?

3. **7.NS.1.2**

What is the value of the expression?

$$9 \times 3 - 9 \times \frac{20}{-5}$$

4. **7.NS.1.3**

A diver is swimming 30 meters below sea level. Another diver is taking a break on a boat platform that is 5 meters above sea level directly above him. How far apart are the two divers?

- A. 5 meters
- B. 25 meters
- C. 35 meters
- D. 40 meters

5. **7.NS.1.2**

Express the following fraction as a decimal.

$$\frac{11}{25}$$

Day 4

1. **7.EE.1.1**

Which of the given pairs of expressions are equivalent? Select all that apply.

- A. $3z + 2z$ and $5z$
- B. $(8x - 8x) - y$ and 0
- C. $9.1 + 4.5a - 2.5a$ and $11.1a$
- D. $-7y(3) - 3$ and 0
- E. $y - 6(3)$ and $y - 18$

2. **7.NS.1.1**

What is the value of the expression shown below?

$$8 - (-5.5)$$

- A. -13.5
- B. -2.5
- C. 2.5
- D. 13.5

3. **7.NS.1.2**

What is the value of $\frac{-33}{9+2}$?

4. **7.NS.1.3**

The change in the average price of a gallon of milk from 2011 to 2013 is shown in the table below.

Year	Price Change (in dollars)
2011	-0.57
2012	+0.25
2013	-0.08

At the end of 2010, the price of a gallon of milk was \$3.47.

What was the price, in dollars, of a gallon of milk at the end of 2013?

5. **7.NS.1.3**

Linda is training for a half marathon. She ran $3\frac{3}{4}$ miles Monday, 3 miles Tuesday, and $2\frac{1}{2}$ miles Wednesday. How many miles did she run in those three days?

- A. $8\frac{1}{4}$ miles
- B. $9\frac{1}{4}$ miles
- C. $9\frac{1}{3}$ miles
- D. $9\frac{1}{2}$ miles

Day 5

1. 7.EE.1.1

Which expressions are equivalent to $6xy + 9xy - 18y$? Select all that apply.

- A. $3(2xy + 3xy - 6y)$
 B. $3x(2y + 3y - 6)$
 C. $3y(2x + 3x - 6)$
 D. $xy(5 - 6y)$
 E. $3y(5x - 6)$
 F. $y(15x - 18)$

2. 7.NS.1.1

Omari and Daisy live on the same street as their school. The street runs from east to west.

Omari lives $5\frac{1}{2}$ blocks west of the school.

Daisy lives $4\frac{1}{4}$ east of the school. How many blocks apart are Omari's house and Daisy's house?

3. 7.NS.1.2

The table below shows Greg's scores at a state golf tournament. What is Greg's average score for the five rounds?

Round	1	2	3	4	5
Score	3	1	-3	-2	-4

- A. -4
 B. -3
 C. -2
 D. -1

4. 7.NS.1.3

A puppy gained 6 pounds during the month of September, which has 30 days. On average, how many pounds did the puppy gain each day? Select all that apply.

- A. $\frac{1}{5}$ lb
 B. $\frac{2}{9}$ lb
 C. 0.2 lb
 D. 0.5 lb
 E. 5 lb

5. 7.EE.1.1

Which expression represents the sum of $(2x - 5y)$ and $(x + y)$?

- A. $3x - 4y$
 B. $3x - 6y$
 C. $x - 4y$
 D. $x - 6y$

Day 1

1. 7.EE.1.2

Patrick is buying a new pair of shoes. The expression shown below represents the sales tax on the price of the shoes, s .

$$0.06s$$

By what number can Patrick multiply the price of the shoes, s , to determine the total amount he will need to pay for them, including the tax?

2. 7.EE.2.3

Donte bought a computer that was 20% off the regular price of \$1,080. If an 8% sales tax was added to the cost of the computer, what was the total price Donte paid for it?

3. 7.G.1.2

Can you draw an isosceles triangle with only one 80° angle. Is this the only possibility or can another triangle be drawn that will meet these conditions?

4. 7.G.1.3

A triangular right prism is cut perpendicular to the base. What is the shape of the cross section?

- A. hexagon
- B. rectangle
- C. trapezoid
- D. triangle

5. 7.EE.1.2

Phillip bought a used car for x dollars. One year later the value of the car was $0.88x$. Which expression is another way to describe the change in the value of the car?

- A. 0.12% decrease
- B. 0.88% decrease
- C. 12% decrease
- D. 88% decrease

Day 2

1. **7.EE.1.2**

The population of a city is expected to increase by 7.5% next year. If p represents the current population, which expression represents the expected population next year?

- A. $1.75p$
- B. $1.075p$
- C. $p + 0.075$
- D. $1 + 0.075$

2. **7.EE.2.3**

Delia earns \$10.50 per hour working at a restaurant. On Friday she spent $1\frac{3}{4}$ hours cleaning, $2\frac{1}{3}$ hours doing paperwork, and $1\frac{5}{12}$ hours serving customers. What were Delia's earnings?

- A. \$46.97
- B. \$47.25
- C. \$53.00
- D. \$57.75

3. **7.G.1.2**

Can a triangle have more than one obtuse angle? Explain.

4. **7.G.1.3**

Which of the following could be a horizontal cross-section of a cylinder?

- A. hexagon
- B. triangle
- C. circle
- D. octagon

5. **7.EE.2.3**

Martha buys tennis rackets for \$45. She marks them up 25% before selling them. What is the retail price of the tennis racket?

- A. \$11.25
- B. \$54.00
- C. \$56.25
- D. \$112.50

Day 3

1. 7.EE.1.2

Stanley drew a rectangle that was w inches wide. The expression $2(2w) + 2(w)$ represents the perimeter of the rectangle Stanley drew. Which statement relates the perimeter to the width of the rectangle?

- A. The perimeter is 6 inches more than the width.
- B. The perimeter is 6 times the width.
- C. The perimeter is 2 inches more than the width.
- D. The perimeter is 2 times the width.

2. 7.EE.2.3

The price of mailing a small package is \$0.32 for the first ounce and \$0.21 for each additional ounce. Simone paid \$1.16 to mail her package. How much did it weigh?

3. 7.G.1.2

Place a check mark in the box next to each set of lengths that could be the sides of a triangle. Select all that apply

- A. 3 feet, 4 feet, and 5 feet
- B. 1 meter, 7 meters, and 10 meters
- C. 1.5 inches, 1.5 inches, and 2.5 inches
- D. 7 centimeters, 7 centimeters, and 7 centimeters
- E. 6 miles, 6 miles, and 12 miles

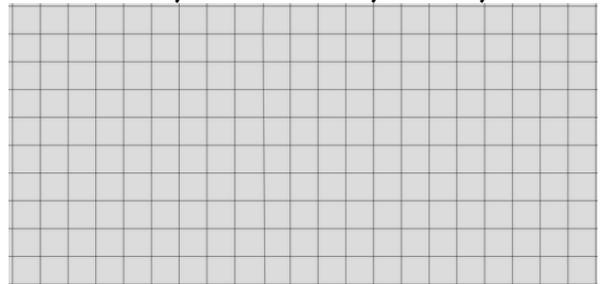
4. 7.G.1.3

Which of the following could *not* be a cross section of a rectangular prism?

- A. rectangle
- B. circle
- C. parallelogram
- D. triangle

5. 7.G.1.2

On the grid below, draw a quadrilateral that has only one line of symmetry.



Day 4

1. 7.EE.1.2

Pajae has a discount card that reduces the price of her grocery bill in a certain grocery store by 5%. If c represents the cost of Pajae's groceries, which expression represents Pajae's grocery bill?

- A. $0.05c$
- B. $0.95c$
- C. $c - 0.05$
- D. $c - 0.95$

2. 7.EE.2.3

Damien has \$25 he can spend on art supplies. The table shows some items he would like to buy.

Item	Cost
Brush	\$2.40
Pad of paper	\$5.25
Pastel crayon	\$3.97
Watercolor paint	\$2.75

Select a combination of supplies Damien could buy for \$25 or less. Select all that apply.

- A. 1 pad of paper and 5 pastel crayons
- B. 2 brushes and 7 watercolor paints
- C. 2 pads of paper and 6 brushes
- D. 3 pastel crayons and 4 watercolor paints
- E. 2 pads of paper and 6 watercolor paints

3. 7.G.1.2

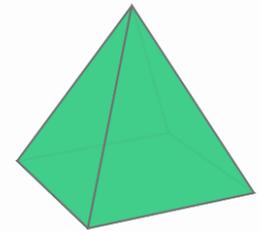
A triangle has one side which is 2 meters long and another side which is 5 meters long. Write a value that could be the length of the third side, in feet.

4. 7.G.1.3

A square pyramid is shown below.

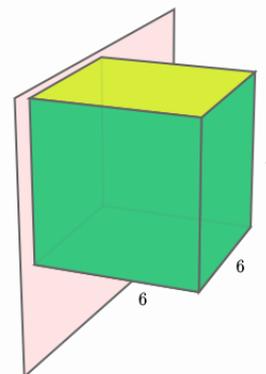
Which shapes could be formed by slicing the square pyramid by a plane? Select all that apply.

- A. circle
- B. triangle
- C. rectangle
- D. trapezoid
- E. square



5. 7.G.1.3

The figure below shows a cube of side length 6 units.



Draw the shape of a vertical slice through the cube, assuming the slice is parallel to one of the faces of the cube. Label the dimensions of your drawing.

Day 5

1. 7.EE.1.2

A tutor earns d dollars per hour. He will be increasing his hourly wage by 10% starting next month. He tells one of his clients that his new wage can be determined by multiplying his previous wage by 1.1. Is he correct? Write expressions to justify your answer.

2. 7.EE.2.3

The table shows the prices of candies at Crystal's Candies. Victor buys $\frac{2}{3}$ pound of white chocolates, $\frac{1}{2}$ pound of gummy bears, and $1\frac{1}{4}$ pounds of dark chocolates for a party.

Type	Cost (per pound)
White Chocolates	\$4.50
Gummy Bears	\$2.40
Dark Chocolates	\$6.00

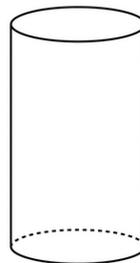
How much did Victor spend on candy for the party?

3. 7.G.1.2

Kelly's teacher asked her to draw a triangle that doesn't have any lines of symmetry. What type of triangle should Kelly draw?

- A. an equilateral triangle
- B. an isosceles triangle
- C. a scalene triangle
- D. the triangle could be scalene or isosceles

4. 7.G.1.3



A cylinder is shown to the left.

Describe how to pass a plane through the figure so that the cross section formed in the plane is a rectangle.

5. 7.EE.1.2

Which of the following is not a solution for finding the perimeter of the square?



- A. $4(2y + 2)$
- B. $8y + 8$
- C. $(2y + 2) + (2y + 2) + (2y + 2) + (2y + 2)$
- D. $4y + 4$

Day 1**1. 7.EE.2.4**

David wants to buy 2 pineapples and some bananas.

- The price of 1 pineapple is \$2.99.
- The price of bananas is \$0.67 per pound.

David wants to spend less than \$10.00. Write an inequality that represents the number of pounds of bananas, b , David can buy.

2. 7.RP.1.1

Angel and Jayden were at track practice.

The track is $\frac{2}{5}$ kilometers around.

- Angel ran 1 lap in 2 minutes.
- Jayden ran 3 laps in 5 minutes.

How many minutes does it take Angel to run one kilometer?

3. 7.RP.1.2

Coffee costs \$18.96 for 3 pounds. What is the cost for one pound of coffee?

4. 7.RP.1.3

Suzanne bought a sweater at the sale price of \$25. The original cost of the sweater was \$40. What percent represents the discount that Suzanne received when buying the sweater?

- A. 15%
- B. 37.5%
- C. 60%
- D. 62.5%

5. 7.EE.2.4

A mover notes the weights of a table and 4 chairs and records $t + 4c \geq 100$ on his invoice. What is he communicating?

- A. The table and chairs each weigh more than 100 pounds.
- B. The table and chairs weigh at most 100 pounds.
- C. The table and chairs weigh around 100 pounds.
- D. The table and chairs weigh at least 100 pounds.

Day 2

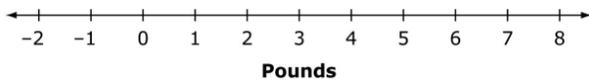
1. 7.EE.2.4

David wants to buy 2 pineapples and some bananas.

- The price of 1 pineapple is \$2.99.
- The price of bananas is \$0.67 per pound.

David wants to spend less than \$10.

On the number line below, draw a graph that represents the number of pounds of bananas David can buy.



2. 7.RP.1.1

Angel and Jayden were at track practice.

The track is $\frac{2}{5}$ kilometers around.

- Angel ran 1 lap in 2 minutes.
- Jayden ran 3 laps in 5 minutes.

How many minutes does it take Jayden to run one kilometer?

3. 7.RP.1.2

Two pounds of dried cranberries cost \$5.04, 3 pounds of dried cranberries cost \$7.56, and 7 pounds of dried cranberries cost \$17.64. Which equation gives the total cost y of x pounds of dried cranberries.

- A. $y = 1.68x$
- B. $y = 2.52x$
- C. $y = 3.04x$
- D. $y = 5.04x$

4. 7.RP.1.3

There were 24 boys and 20 girls in a chess club last year. This year the number of boys increased by 25% but the number of girls decreased by 10%. Was there an increase or decrease in overall membership?

5. 7.RP.1.1

A crew of highway workers paved $\frac{2}{15}$ mile in 20 minutes. If they work at the same rate, what portion of a mile will they pave in one hour?

- A. $\frac{1}{150}$
- B. $\frac{2}{45}$
- C. $\frac{2}{5}$
- D. $\frac{5}{2}$

Day 3

1. 7.EE.2.4

What is the solution to the inequality

$$-3x - 42 > 3?$$

- A. $x > -13$
- B. $x < -13$
- C. $x > -15$
- D. $x < -15$

2. 7.RP.1.1

Angel and Jayden were at track practice.

The track is $\frac{2}{5}$ kilometers around.

- Angel ran 1 lap in 2 minutes.
- Jayden ran 3 laps in 5 minutes.

How far does Angel run in one minute?

3. 7.RP.1.2

George is going to rent a car for 10 hours to use for travel. He will figure his cost by using the chart below. What is his cost for 10 hours?

Number of Hours	Cost
4	\$20
5	\$25
6	\$30
7	\$35

4. 7.RP.1.3

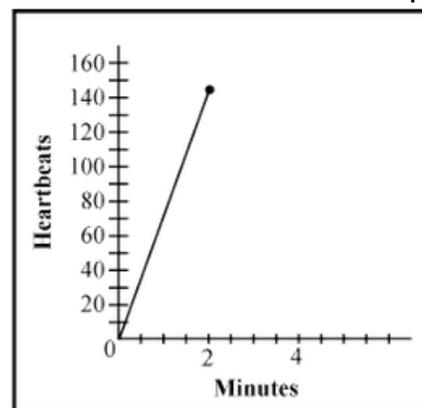
Teresa is maintaining a camp fire. She has kept the fire steadily burning for 4 hours with 6 logs. She wants to know how many logs she needs to keep the fire burning for 18 hours.

Select the equations Teresa can use, and determine the number of logs she needs to maintain the fire for 18 hours. Select all that apply.

- A. $\frac{x}{6} = \frac{4}{18}$
- B. $\frac{x}{6} = \frac{18}{4}$
- C. $\frac{x}{18} = \frac{6}{4}$
- D. $\frac{x}{4} = \frac{18}{6}$
- E. $\frac{4}{6} = \frac{18}{x}$

5. 7.RP.1.2

According to the graph above, what is the unit rate of a human's heartbeat per minute?



Day 4

1. 7.EE.2.4

Carolyn paid a mechanic x dollars per hour for a 5-hour job plus \$70 for parts. The total charge was \$320. Which equation can be used to determine how much the mechanic charged per hour?

- A. $5x = 320 + 70$
- B. $5x = 320 - 70$
- C. $(70 + 5)x = 320$
- D. $(70 - 5)x = 320$

2. 7.RP.1.1

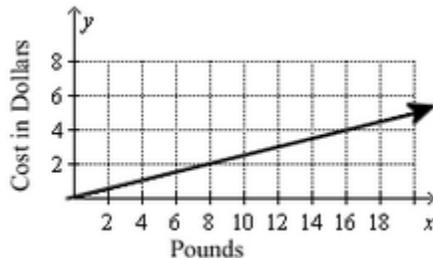
Angel and Jayden were at track practice. The track is $\frac{2}{5}$ kilometers around.

- Angel ran 1 lap in 2 minutes.
- Jayden ran 3 laps in 5 minutes.

How far does Jayden run in one minute?

3. 7.RP.1.2

The farmers market sells bags of oranges by the pound. What is the cost per pound for oranges according to the following graph?



- A. \$0.04 per pound
- B. \$0.25 per pound
- C. \$0.33 per pound
- D. \$0.50 per pound

4. 7.RP.1.3

The Lions won 16 games last year. This year the Lions won 20 games. What is the percent increase in the number of games the Lions won from last year to this year?

- A. 20%
- B. 25%
- C. 80%
- D. 125%

5. 7.RP.1.3

A store purchased a DVD for \$12.00 and sold it to a customer for 50% more than the purchase price. The customer was charged a 7% tax when the DVD was sold. What was the customer's total cost for the DVD?

- A. \$12.84
- B. \$18.42
- C. \$18.84
- D. \$19.26

Day 5

1. 7.EE.2.4

Kevin went bowling with \$25 to spend. He rented shoes for \$5.25 and paid \$4.00 for each game. What inequality could be used to find g , the greatest number of games Kevin could have played?

- A. $4g + 5.25 \leq 25$
- B. $4g + 5.25 \geq 25$
- C. $9.25g \leq 25$
- D. $9.25g \geq 25$

2. 7.RP.1.1

Angel and Jayden were at track practice. The track is $\frac{2}{5}$ kilometers around.

- Angel ran 1 lap in 2 minutes.
- Jayden ran 3 laps in 5 minutes.

Who is running faster?

3. 7.RP.1.2

The students in Ms. Baca's art class were mixing yellow and blue paint. She told them that two mixtures will be the same shade of green if the blue and yellow paint are in the same ratio.

The table below shows the different mixtures of paint that the students made.

	A	B	C	D	E
Yellow	1 part	2 parts	3 parts	4 parts	6 parts
Blue	2 part	3 parts	6 parts	6 parts	9 parts

How many different shades of paint did the students make?

4. 7.RP.1.3

Mr. Smith earns \$200 per week working at a clothing store. In addition, he earns 3% commission on all of his sales. Last week, he sold \$1,800 worth of clothes. What was Mr. Smith's total income for that week?

5. 7.RP.1.1

Betty makes pies. To make 6 pies, she uses $7\frac{1}{2}$ cups of flour. How many cups of flour are needed to make 1 pie?

Day 1

1. 7.G.1.1

Brett made a scale drawing of a rectangular room in his house. The actual length of the room is $12\frac{4}{5}$ ft. The scale used to make the drawing was $\frac{1}{4}$ in. = 1 ft. What is the length, in inches, of the room in the drawing?

2. 7.G.2.4

The circumference of a circle is 188 meters. What is the approximate radius of the circle?

- A. 30 meters
- B. 60 meters
- C. 94 meters
- D. 128 meters

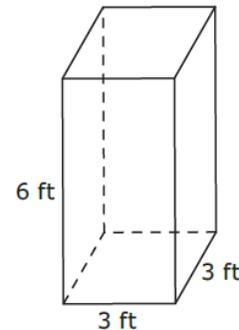
3. 7.G.2.5

Angles T and V are complementary. Angle T has a measure of $(2x + 10)^\circ$. Angle V has a measure of 48° . What is the value of x ?

- A. 16°
- B. 19°
- C. 26°
- D. 42°

4. 7.G.2.6

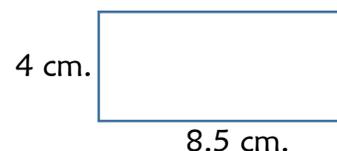
What is the surface area of the figure below?



- A. 12 ft^2
- B. 36 ft^2
- C. 54 ft^2
- D. 90 ft^2

5. 7.G.1.1

Tara will draw a scale model of the garden she wants to plant. Her scale will be 1 cm. = 2.5 ft.



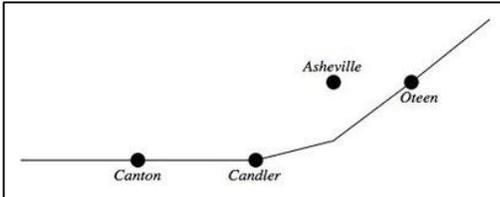
What will be the actual dimensions of Tara's garden?

- A. 1.6 ft. by 3.4 ft.
- B. 4 ft. by 34 ft.
- C. 8 ft. by 34 ft.
- D. 10 ft. by 21.25 ft.

Day 2

1. 7.G.1.1

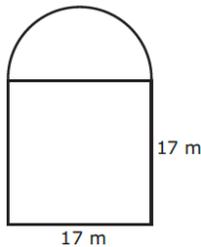
On the map below, $\frac{1}{4}$ inch represents one mile. Candler, Canton, and Oteen are three cities on the map.



If the distance between the real towns of Candler and Canton is 9 miles, how far apart are Candler and Canton on the map?

2. 7.G.2.4

A sketch of Lisa's yard is shown below.

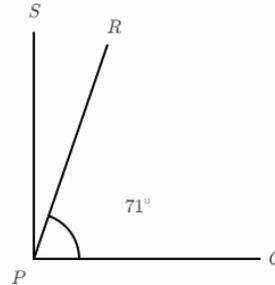


What is the approximate area of Lisa's yard?

- A. 316 m^2
- B. 402 m^2
- C. 516 m^2
- D. 743 m^2

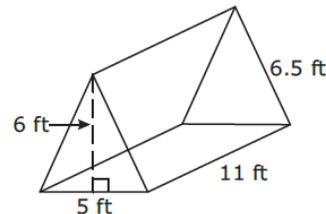
3. 7.G.2.5

If $\angle QPS$ is a right angle and $m\angle QPR = 71^\circ$, what is $m\angle RPS$?



4. 7.G.2.6

What is the volume of this triangular right prism?



- A. 165 ft^3
- B. 330 ft^3
- C. $1,073 \text{ ft}^3$
- D. $2,145 \text{ ft}^3$

5. 7.G.2.4

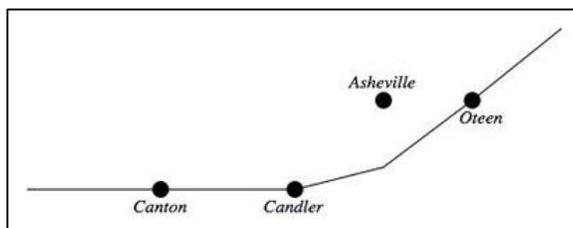
A circle is drawn on the coordinate plane. It has a center at $(2, 1)$ and passes through the point $(2, 5)$. What is the approximate circumference of the circle?

- A. 8 units
- B. 13 units
- C. 25 units
- D. 50 units

Day 3

1. **7.G.1.1**

On the map below, $\frac{1}{4}$ inch represents one mile. Candler, Canton, and Oteen are three cities on the map.



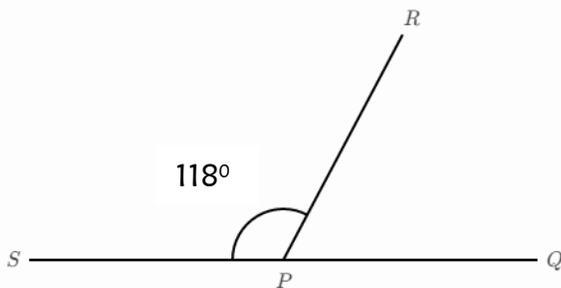
If Candler and Oteen are $3\frac{1}{2}$ inches apart on the map, what is the actual distance between Candler and Oteen in miles?

2. **7.G.2.4**

The circumference of a circle is 11π inches. What is the area, in square inches, of the circle? Express your answer in terms of π .

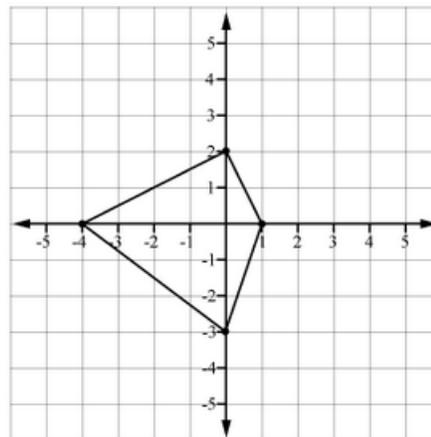
3. **7.G.2.5**

What is the measure of $\angle QPR$? Explain how you know.



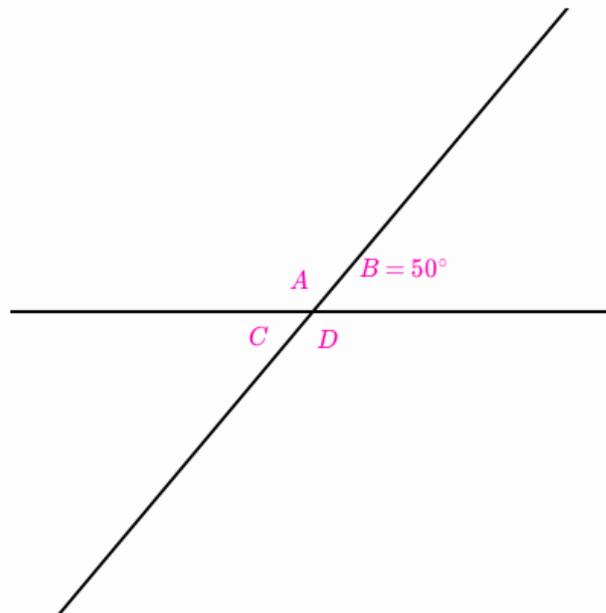
4. **7.G.2.6**

Find the area of the figure drawn on the coordinate plane below.



5. **7.G.2.5**

What can you conclude from the picture shown below? Select all that apply.



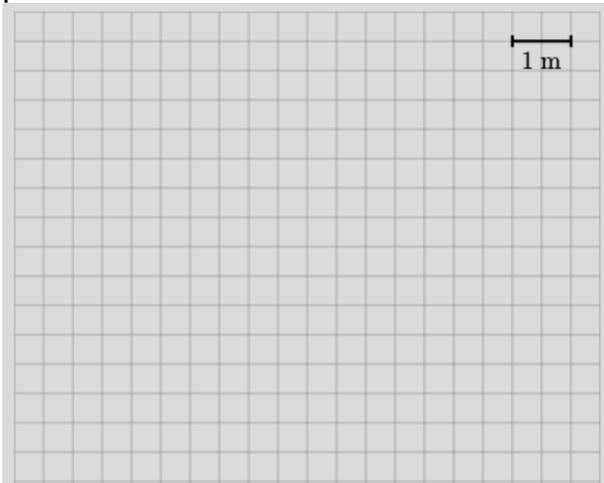
- A. $m\angle D = 130^\circ$
- B. $\angle B$ and $\angle C$ are vertical angles.
- C. $\angle B$ and $\angle C$ are adjacent angles.
- D. $\angle B$ and $\angle D$ are adjacent angles.
- E. $\angle B$ and $\angle A$ are complementary angles.

Day 4

1. 7.G.1.1

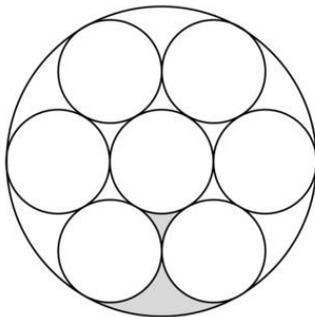
Rishi is making a map of a remote village. In this village, each hut has a rectangular base measuring 4 m. by 6 m.

Draw one of the huts described on the map provided below.



2. 7.G.2.4

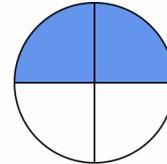
The figure below is composed of eight circles, seven small circles and one large circle containing them all. Neighboring circles only share one point, and two regions between the smaller circles have been shaded. Each small circle has a radius of 5 cm.



What is the approximate area of the large circle rounded to the nearest whole?

3. 7.G.2.5

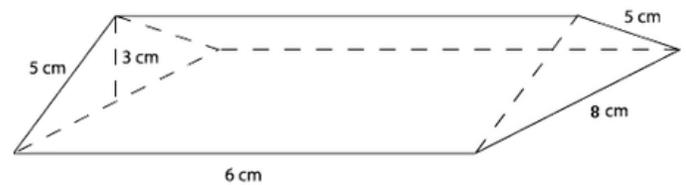
There are two slices of pizza left. The original pizza had four slices of equal size. What kind of angles are the two slices together? Select all that apply.



- A. complementary angles
- B. supplementary angles
- C. adjacent angles
- D. vertical angles
- E. corresponding angles

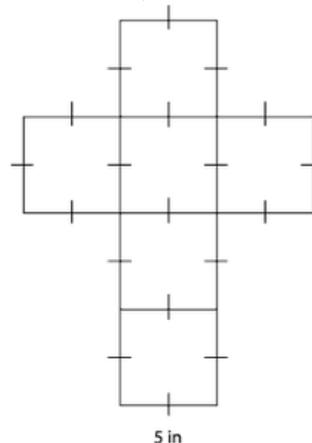
4. 7.G.2.6

Find the surface area of the figure below.



5. 7.G.2.6

What is the volume of the figure that can be formed by the net below?



Day 5

1. 7.G.1.1

Tyrell is a landscape architect. For his first public project he is asked to create a small scale drawing of a garden to be placed in the corner of a city park. The garden is a right triangle with base 25 m and height 30 m.

Draw the garden such that 1 unit on the grid below = 5 meters.

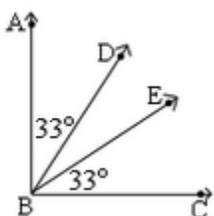


2. 7.G.2.4

The floor of Cara's living room is 10 feet by 14 feet. What is the area, in square feet, of the largest circular rug that can fit in Cara's living room? (Use 3.14 to approximate π .)

3. 7.G.2.5

$\angle ABC$ is a right angle. What is the measure of $\angle DBE$?



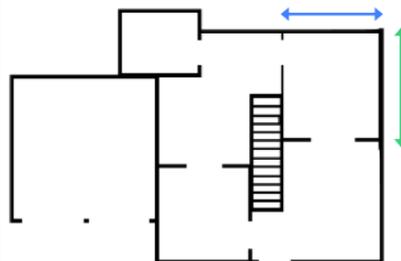
4. 7.G.2.6

Which of the following could be the dimensions of a rectangular prism with a volume of 60 m^3 ? Select all that apply.

- A. $1 \text{ m} \times 1 \text{ m} \times 60 \text{ m}$
- B. $3 \text{ m} \times 4 \text{ m} \times 5 \text{ m}$
- C. $4 \text{ m} \times 15 \text{ m} \times 2 \text{ m}$
- D. $3 \text{ m} \times 4 \text{ m} \times 12 \text{ m}$
- E. $1 \text{ m} \times 6 \text{ m} \times 10 \text{ m}$
- F. $5 \text{ m} \times 6 \text{ m} \times 2 \text{ m}$

5. 7.G.1.1

Lucas is inspecting a floor plan of his new house with a scale of $5 \text{ cm} : 4 \text{ m}$. The dimensions of his bedroom in the scaled plan are 4 cm by 5 cm. What is the area of Lucas's actual bedroom in square meters?



Day 1

1. 7.EE.1.1

An expression is shown below.

$$20x + 35y$$

What is the greatest common factor of the terms $20x$ and $35y$?

2. 7.EE.1.2

Ray is buying some ginger roots to brew some fresh ginger ale. The price of the ginger roots is g , and Ray has a coupon for 10% off.

Match the expressions to their meanings below.

	<i>Price of the ginger roots without the coupon</i>	<i>Money Ray saves by using the coupon</i>	<i>Price of the ginger after using the coupon</i>	<i>None of these</i>
$0.9g$				
$g - 0.1$				
g				
$g - 0.1g$				
$0.1g$				
$1.1g$				

3. 7.NS.1.1

Which of the following expressions are equivalent to a value of -6 ?

- A. $0 - 6$
- B. $0 - (-6)$
- C. $12 - 18$
- D. $-7 - (-1)$
- E. $-3 - 9$

4. 7.NS.1.2

What is the value of the expression shown below?

$$(-1.25)(-0.5)(4)$$

5. 7.NS.1.3

A ski lodge keeps records of the snow falling and melting. The first day, there were 18 inches. The second day, it melted 2 inches. The next day it melted 4 inches. The next day 8 inches of snow fell. How many inches are there now?

Day 2

1. 7.EE.1.1

Which of the equations shows an application of the Zero Property of Multiplication?

A. $\frac{2}{5}b + 0 = \frac{2}{5}b$

B. $\frac{1}{3}(3y) = y$

C. $0 \cdot \frac{n}{2} = 0$

D. $\left(\frac{3}{4}m - 2\right) - \left(\frac{3}{4}m + 3\right) = -5$

2. 7.EE.1.2

Jay took a number n and increased it by 25%. Then, he doubled the resulting product.

Which of the following is equivalent to these two steps and would result in the same final number?

A. doubling the number and then decreasing the result by 25%

B. increasing the number by 50%

C. multiplying the number by 1.25

D. multiplying the number by 2.5

3. 7.NS.1.1

What is the value of the expression shown below?

$$-7\frac{3}{4} + 3\frac{1}{2}$$

4. 7.NS.1.2

Which of the following expressions are equivalent to $-\frac{2}{3}$? Select all that apply.

A. $-\frac{1}{9} \times 6$

B. $-15 \div 10$

C. $12 \div -18$

D. $-\frac{3}{4} \div \frac{1}{2}$

E. $-\frac{8}{9} \times \frac{3}{4}$

5. 7.NS.1.3

In Antarctica the temperature can change drastically between day and night. At 3:00 pm, the temperature was a chilly 7°C . At that time, it began to drop at a steady rate of 6°C every hour.

What was the temperature at 7:00 pm?

Day 3

1. 7.EE.1.1

Rewrite the expression below as the sum of one constant and one variable term

$$2(x - 4) + 6x - 5x \cdot 3$$

2. 7.EE.1.2

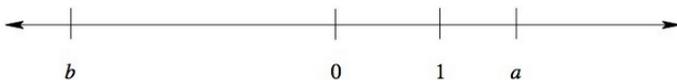
Breyana is buying a new dress. The dress is on sale for 20% off. Breyana will also have to pay 10% sales tax on the discounted price of the dress. The expression below represents the total amount, including the tax, that Bianca will pay for a dress which originally costs x dollars.

$$(x - 0.20x) + 0.10(x - 0.20x)$$

What percent of the dress's original price will Breyana pay?

3. 7.NS.1.1

A number line is shown below. The numbers 0 and 1 are marked on the line, as are two other numbers a and b .



Which of the following expressions represent a negative value? Select all that apply.

- A. $a - 1$
- B. $-b$
- C. $a + b$
- D. $a - b$
- E. $-a$

4. 7.NS.1.2

Hannah says that $-\frac{5}{4}$ has the same quotient as $\frac{5}{-4}$. Do you agree? Why or why not?

5. 7.NS.1.3

In Antarctica the temperature can change drastically between day and night. At 3:00 pm, the temperature was a chilly 7°C . At that time, it began to drop at a steady rate of 6°C every hour.

At what time was the temperature -5°C ?

Day 4

1. 7.EE.1.1

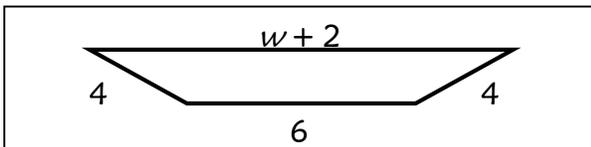
Which expression is equivalent to the expression given below?

$$2(x - 3) + 4x + 3$$

- A. $6x$
- B. $6x - 3$
- C. $3x$
- D. $-2x + 3$

2. 7.EE.1.2

Given the trapezoid below, Peter and Christine each wrote different expressions to find its perimeter.



Peter's expression: $6 + 4 + (w + 2) + 4$

Christine's expression: $w + 16$

Who is correct? Explain.

3. 7.NS.1.1

Michelle drove a total of 57.8 kilometers on Saturday. She drove 23.5 kilometers from her house to the park. Her next stop was the library, which is 18.3 kilometers from the park. She drove 5.7 kilometers from the library to the grocery store, and then she drove home.

What is the total distance she drove from her house to the grocery store?

4. 7.NS.1.2

Which of the following are equivalent to $-\frac{5}{8}$?

- A. -0.625
- B. $\frac{-5}{8}$
- C. $\frac{-5}{-8}$
- D. $-0.8\bar{3}$
- E. $\frac{5}{-8}$

5. 7.NS.1.3

The chart below displays the daytime high and the nighttime low temperatures for one Friday in Anchorage, Alaska.

Friday Daytime High	-7°F
Friday Nighttime Low	-16°F

How many degrees did the temperature drop from the daytime high to the nighttime low?

Day 5

1. 7.EE.1.1

Ms. Johnson asked her class to write an equivalent expression to

$$14d - 9 + 21k - 7dk + 2.$$

- Riley wrote the expression
 $7dk(2 - 3 - 1) - 7$
- Ahmad wrote the expression
 $7(2d - 3k - dk) - 7$
- Ariana wrote the expression
 $7k(2d - 3 - d) - 7$

Who is correct? Explain how you know.

2. 7.EE.1.2

Donovan eats 2 granola bars and a glass of orange juice for breakfast every day. A granola bar costs b dollars and a glass of orange juice costs j dollars. There are different ways to calculate the cost of Donovan's breakfast for seven days.

Match the expression to the corresponding descriptions below by placing a check mark in each row.

	Find the cost of breakfast for 1 day, then multiply that by 7	Find the number of glasses of juice and granola bars in 7 breakfasts, then add up all the prices	This expression can't be used to correctly calculate the cost
$7(2j + b)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$7j + 14b$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$7(j + 2b)$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
$14j + 7b$	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. 7.NS.1.1

Michelle drove a total of 57.8 kilometers on Saturday. She drove 23.5 kilometers from her house to the park. Her next stop was the library, which is 18.3 kilometers from the park. She drove 5.7 kilometers from the library to the grocery store, and then she drove home.

What is the distance from Michelle's house straight to the grocery store?

4. 7.NS.1.2

Determine if each fraction is a terminating decimal or a repeating decimal. Select Terminating or Repeating by placing a check or X in the appropriate box.

Fraction	Terminating Decimal	Repeating Decimal
$\frac{7}{9}$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{42}{50}$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{1}{125}$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{7}{60}$	<input type="checkbox"/>	<input type="checkbox"/>
$\frac{5}{11}$	<input type="checkbox"/>	<input type="checkbox"/>

5. 7.NS.1.3

A submarine is 36 feet below sea level. It ascends 16 feet. What is the submarine's current position?

Day 1

1. 7.G.1.1

Kaitlyn creates an architectural blueprint of a rectangular dining room. The *area* of the actual dining room is 900 times as large as the area of the dining room on the blueprint. The *length* of the dining room on the blueprint is 4 inches.

What is the length of the actual dining room?

2. 7.G.1.2

Look at each set of conditions. Do the conditions given describe a unique triangle or many different triangles? Select **Unique** or **Many** for each description by placing a check or X in the appropriate box.

Conditions	Unique	Many
Side lengths 3 cm, 6 cm, 7 cm		
Angle measures 30° , 60° , 90°		
Angle measures 35° , 35° , 110°		
Side lengths 5 cm, 5 cm, 5 cm		
Side lengths 3 in and 4 in with an included 95° angle		

3. 7.G.1.3

An office building has the shape of a right rectangular prism with width 20 meters, length 40 meters, and height 60 meters. Draw the shape of one floor of the building. Label the dimensions of your drawing.



4. 7.G.2.4

Joshua and Kay are out for a walk on a rainy day. They come to the edge of a large, circular puddle that has a radius of 3 feet. Joshua is wearing boots, so he walks straight through the center of the puddle to the other side. Kay forgot to wear her boots, so she walks around the outside of the puddle to meet Joshua on the other side.

How much farther, in feet, did Kay walk than Joshua? (Use 3.14 for π .)

5. 7.G.1.1

Stacy has hired Tom to build her a doll house. The doll house will be a scale model of her home, and the scale will be 2 in:3 ft. The living room in Stacy's house is 18 feet by 12 feet and has wall-to-wall carpeting. How many square inches of carpeting will Tom need for the living room in Stacy's doll house?

Name: _____

7th Grade Math: Week 6 FSA Countdown

Date: _____

Period: _____

Day 2

1. 7.G.1.1

Manny drew a picture of a cruise ship the he saw docked at Port Canaveral.

He used the scale $\frac{1}{4}$ in. : 32 ft.

If his picture is 9.25 inches long, what is the length, in feet, of the actual cruise ship?

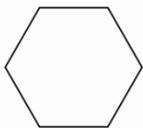
2. 7.G.1.2

Can a quadrilateral be drawn that meets the conditions described below? Select Yes or No by placing a check or X in the appropriate box.

Conditions	Yes	No
Two pairs of parallel sides and at least two right angles		
One pair of parallel sides and no right angles		
One pair of parallel sides and three right angles		
No parallel sides and four right angles		

3. 7.G.1.3

Which one of the following solids produces this two-dimensional shape when sliced horizontally?



A.



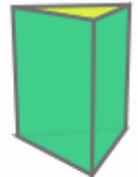
C.



B.



D.



4. 7.G.2.4

Carol walks a circular path with a radius of 280 yards at the local park. How far does she walk? (Use $\frac{22}{7}$ for π .)

5. 7.G.1.2

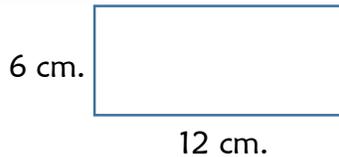
$\triangle ABC$ has a side of length 3 and a side of length 4.

Is there another triangle with one side of length 3 and another side of length 4, but the third side length is different? Explain why or why not.

Day 3

1. 7.G.1.1

The figure below is a scale drawing of a rectangular ball room. The scale is 2 cm:4 m.



What is the area of the actual room?

- A. 72 m²
- B. 144 m²
- C. 288 m²
- D. 576 m²

2. 7.G.1.2

Nicholas drew a triangle with 45°, 35°, and 100° angles.

Is there another triangle with the same three angles but different side lengths?

3. 7.G.1.3

Ivan has a right rectangular prism with a square base. The height of the prism is twice the length of the base.

Which shapes can be obtained as a horizontal or vertical slice through the prism? Select all that apply.

- A. a rectangle
- B. a triangle
- C. a parallelogram (with no right angles)
- D. a square
- E. a pentagon

4. 7.G.2.4

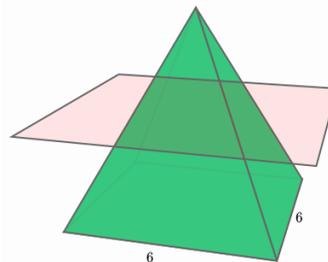
Leslie measures around his bike wheel. Then he measures its diameter. He divides the circumference by the diameter. What was the quotient?

- A. 2
- B. 3
- C. 3.14
- D. π

5. 7.G.1.3

The figure below shows a pyramid whose base is a 6 in \times 6 in square and whose height is 6 in.

Draw the shape of a horizontal slice through the pyramid.



Day 4

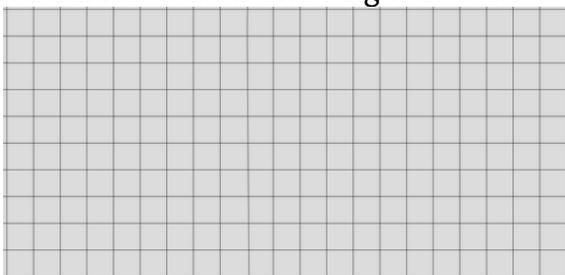
1. 7.G.1.1

The scale of a model train is 1 inch to 13.5 feet. One of the cars of the model train is 5 inches long. What is the length, in feet, of the actual train car?

- A. 67.5 ft.
- B. 32.4 ft.
- C. 14.5 ft.
- D. 2.7 ft.

2. 7.G.1.2

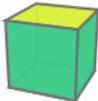
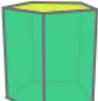
On the grid below, draw a right triangle with a base of 5 units and height of 3 units.



Is this a unique triangle? _____

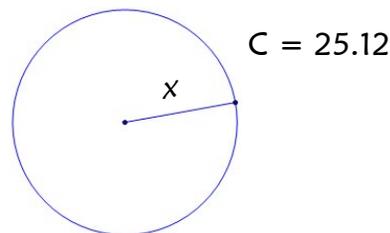
3. 7.G.1.3

Which of the following three dimensional figures can produce a triangle when sliced vertically by a plane? Select all that apply.

- A. 
- B. 
- C. 
- D. 
- E. 

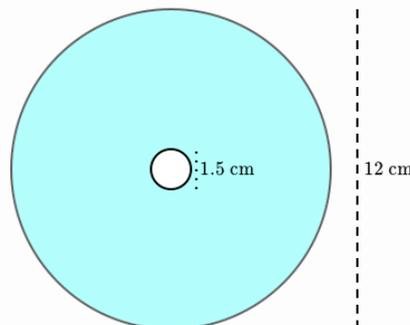
4. 7.G.2.4

Given the information below, Leyla says the radius of the circle is 8 feet. Explain her error and find the correct radius of the circle. (Use 3.14 for π .)



5. 7.G.2.4

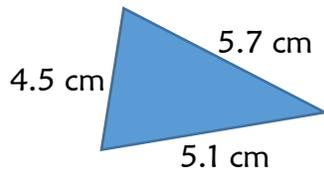
A compact disk (CD) has a diameter of 12 cm. The hole in the middle has a diameter of 1.5 cm. What is the approximate area of the CD? (Use $\frac{22}{7}$ for π .)



Day 5

1. 7.G.1.1

Kyle designed a triangular pennant on his computer with the dimensions shown. He will use a scale of $1 \text{ m} = 3 \text{ cm}$ to create a large school banner to hang in the gym.



Select side lengths that Kyle would include on his scale object. Select all that apply.

- A. 1.5 m
- B. 1.6 m
- C. 1.7 m
- D. 1.9 m
- E. 13.5 m
- F. 15.3 m
- G. 17.1 m

2. 7.G.1.2

Which choice shows three lengths that *cannot* be the lengths of the three sides of a triangle?

- A. 2 cm, 8 cm, 8 cm
- B. 2 cm, 3 cm, 6 cm
- C. 4 cm, 5 cm, 7 cm
- D. 5 cm, 6 cm, 9 cm

3. 7.G.1.3

Name two three-dimensional figures that produce a square when sliced horizontally by a plane.

4. 7.G.2.4

Your friend pulls out a huge home-baked pizza from the oven and tells you the area of the pizza is $A=625\pi \text{ cm}^2$.

What is the diameter, d , of this pizza?



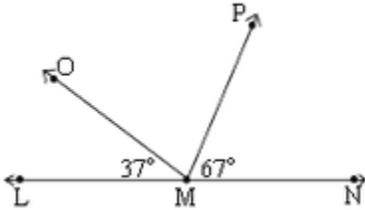
5. 7.G.1.2

$\triangle ABC$ has side lengths that are each equal to 1 unit. Is there another triangle with the same side lengths but different angles? Explain.

Day 1

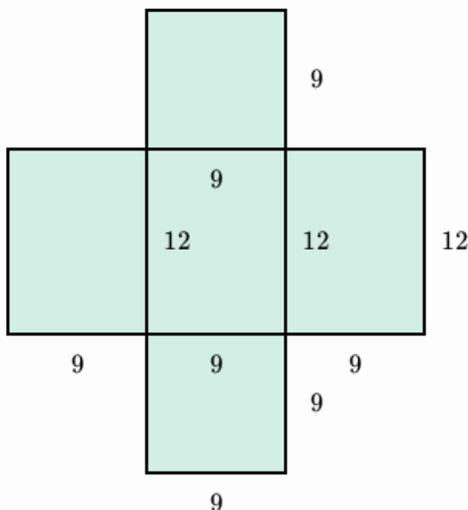
1. **7.G.2.5**

$\angle LMN$ is a straight angle. What is the measure of $\angle OMP$?



2. **7.G.2.6**

The company Digit Tech designs a new SmartPhone. The packaging includes an open box made out of cardboard. The dimensions of the box are 12 cm long, 9 cm wide, and 9 cm high. Digit Tech expects to sell 1500 phones and package each phone individually in a box. In square centimeters, what is the minimum amount of cardboard Digit Tech needs to package all 1500 new SmartPhones?



3. **7.RP.1.1**

Ms. Robinson gave her class 12 minutes to read. Carrie read $5\frac{1}{2}$ pages in that time. At what rate, in pages per hour, did Carrie read?

- A. $1\frac{1}{10}$
- B. 22
- C. $27\frac{1}{2}$
- D. 66

4. **7.RP.1.2**

The table shows how much a store charges for certain numbers of pencils.

Number of pencils (p)	Cost (c)
4	\$0.72
7	\$1.26
12	\$2.16

Based on the table, which equation could be used to calculate the cost, c , of any number of pencils, p ?

- A. $c = 0.09p$
- B. $c = 0.18p$
- C. $c = 0.54p$
- D. $c = 0.72p$

5. **7.RP.1.3**

Two sporting goods stores are having discount sales on basketballs.

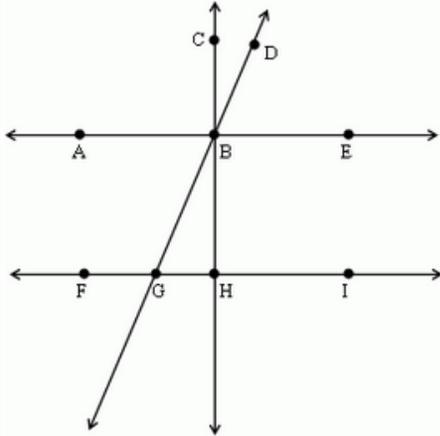
- At Rick's Sporting Goods, a basketball is on sale for 20% off the regular price of \$24.95.
- At Sports Expert, the same kind of basketball is on sale for 25% off the regular price of \$25.80.

Which store has the better deal?

Day 2

1. **7.G.2.5**

Which angle is supplementary to $\angle DBE$?



- A. $\angle DBC$
- B. $\angle DBA$
- C. $\angle EBH$
- D. $\angle BGH$

2. **7.G.2.6**

The volume of a cube is 27 cubic meters. What is its surface area, in square meters?

3. **7.RP.1.1**

One lap around a track is equal to one-fourth of a mile. A horse ran a distance of 9 laps in 2 minutes and 30 seconds. What was the horse's average speed in miles per minute?

4. **7.RP.1.2**

The amount of money Samantha earns from selling her sculptures at a craft show can be determined by the equation $e = \$35s$, where e represents earnings in dollars and s represents the number of sculptures she sells. She sold 11 sculptures at the last craft show. What is the constant of proportionality in this scenario?

5. **7.RP.1.3**

Which items are discounted less than 15%? Select all that apply.

- A. \$199.99 smartphone on sale for \$167.99
- B. \$28,100 car on sale for \$24,750
- C. \$58 jeans on sale for \$50
- D. \$1.99 song download on sale for \$1.75
- E. \$129 pair of shoes on sale for \$105

Day 3

1. 7.G.2.5

If the measures of complementary angles are $(2x + 3)^\circ$ and x° , find the measure of x .

2. 7.G.2.6

A certain hexagonal prism has a volume of 160 cubic meters. Its base has a perimeter of 30 meters and an area of 64 square meters. What is the surface area, in square meters, of the hexagonal prism?

3. 7.RP.1.1

A bathtub fills at a constant rate. The amount of water in the tub increases by $\frac{1}{2}$ gallon every $\frac{1}{10}$ minute. What is the unit rate at which the bath tub fills?

4. 7.RP.1.2

At Juicy Deals grocery store, 4 oranges cost \$7.00. You can buy 7 oranges for \$12.50.

Is the relationship between the number of oranges and their price proportional?

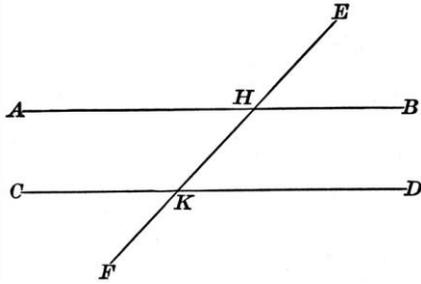
5. 7.RP.1.3

Gail can use her 12% employee discount once a week. Last Sunday, she bought a \$45 sweater at $\frac{1}{3}$ off and used her discount on a suit priced at \$140. On which purchase did she save more money?

Day 4

1. 7.G.2.5

In the figure below, $m\angle EHB = (4x - 2)^\circ$ and the $m\angle AHK = 48^\circ$. What is the value of x ?



2. 7.G.2.6

A rectangular, above-ground swimming pool is 18 feet long, 9 feet wide, and 54 inches deep. One cubic foot of water weighs about 62.4 pounds. What is the total weight of the water in the pool when it is completely full?

- A. 158 lbs
- B. 729 lbs
- C. 8,748 lbs
- D. 45,489.6 lbs

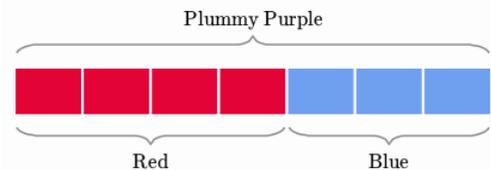
3. 7.RP.1.1

Laura jogs at a rate of 2 miles every $\frac{2}{5}$ hour. What is her unit rate?

- A. 0.4 mi/hr
- B. 2 mi/hr
- C. 5 mi/hr
- D. 10 mi/hr

4. 7.RP.1.2

The following tape diagram describes the relationship between the amount of red paint and the amount of blue paint in a "Plummy Purple" paint mix.



How many cans of blue paint would need to be mixed with 12 cans of red paint to make "Plummy Purple"?

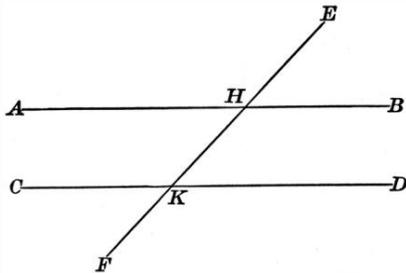
5. 7.RP.1.3

Mollie has \$550 in a savings account that earns 3% simple interest each year. How much will be in her account in 10 years?

Day 5

1. 7.G.2.5

In the figure below, $m\angle AHE = (6x + 7)^\circ$ and the $m\angle AHK = 35^\circ$. What is the value of x ?



2. 7.G.2.6

Perry made a wooden cube with an edge length of 8.5 inches in shop class. He painted half the faces of the cube red and the other half yellow. What is the surface area of the portion of the cube that is painted red?

3. 7.RP.1.1

Three students ran $\frac{1}{2}$ mile around a track. The table below lists the time each student took to run around the track. Complete the table by calculating the average speed of each student in miles per hour.

Students	Ava	Damon	Reina
Time around track (minutes)	5	3	4
Average speed (mph)			

4. 7.RP.1.2

Brenda recorded the amount of time it took to cook potatoes in a microwave.

Potato Cooking Times	
Number of Potatoes	Time (in minutes)
2	10
3	15
5	25

Are the data proportional? How do you know?

5. 7.RP.1.3

Kathryn has a recipe that needs $\frac{3}{4}$ teaspoon of butter for every 2 cups of milk. If Kathryn increases the amount of milk to 4 cups, how many teaspoons of butter are needed?

Day 1

1. 7.EE.2.3

A set of silverware contains 30 pieces. The set contains only spoons, forks, and knives. It contains the same number of spoons and forks and twice as many spoons as knives. How many forks are there in the set?

2. 7.SP.3.5

Daniel took 12 index cards and wrote the numbers 1-12 on them, one number on each card. He then collected the cards, shuffled them, and drew one card from the stack. What is the probability that the number on the card is greater than 0?

3. 7.SP.3.6

A number cube has the numbers 1-6 written on its sides. The number cube is rolled 300 times. Which of the following would you predict to happen? Select all that apply.

- A.** A 4 would be rolled about 50 times.
- B.** A 6 would be rolled about 50 times.
- C.** A 3 would be rolled about 20 times.
- D.** The result would be an even number about 50 times.
- E.** The result would be an even number about 150 times.
- F.** The result would be greater than 3 about 150 times.

4. 7.SP.3.7

Jason is tossing a fair coin. He tosses the coin ten times and it lands on heads eight times. If Jason tosses the coin an eleventh time, what is the probability that it will land on heads?

5. 7.SP.3.8

Jerry will roll a number cube numbered 1-6 twice. What is the probability of rolling an even number, then the number 3?

- A.** $\frac{1}{12}$
- B.** $\frac{1}{6}$
- C.** $\frac{1}{4}$
- D.** $\frac{2}{3}$

Day 2**1. 7.EE.2.3**

Julie just turned 13 years old. In 7 years, her age will be double her brother Pascal's age. How old will Pascal be on Julie's 18th birthday?

- A. 3 years old
- B. 5 years old
- C. 8 years old
- D. 9 years old

2. 7.SP.3.5

The local weather report states that there is a 70% chance of rain today. How likely is it to rain?

- A. certain
- B. likely
- C. neither likely nor unlikely
- D. unlikely

3. 7.SP.3.6

An owner of a small store knows that in the last week 54 customers paid with cash, 42 paid with a debit card, and 153 paid with a credit card. Based on the number of customers from last week, which fraction is closest to the probability that the next customer will pay with cash?

- A. $\frac{1}{5}$
- B. $\frac{1}{2}$
- C. $\frac{1}{3}$
- D. $\frac{1}{4}$

4. 7.SP.3.7

Mila has a bag filled with marbles. In which situations would the probability of Mila drawing a blue marble from the bag be $\frac{1}{3}$? Select all that apply.

- A. A bag with 3 blue marbles.
- B. A bag with 30 blue, 15 green, and 45 orange marbles.
- C. A bag with 50 red, 30 blue, 10 black, and 10 purple marbles.
- D. A bag with 1 blue and 3 yellow marbles.
- E. A bag with 11 green, 13 red, and 12 blue marbles.

5. 7.SP.3.8

Jorge has a bag containing 3 red coins and 3 black coins. He picks a coin from the bag, looks at the color, and does not replace the coin. Jorge then picks another coin from the bag. What is the probability that he will choose a black coin first and a black coin second?

- A. $\frac{1}{3}$
- B. $\frac{1}{5}$
- C. $\frac{1}{6}$
- D. $\frac{1}{9}$

Day 3

1. 7.EE.2.3

Max is taking a cab in New York City. The fare is calculated as a base charge of \$3.00 plus an additional \$2.00 per mile traveled. It is also customary to leave a \$2 tip.

If Max wants to spend exactly \$20, how many miles can he travel?

2. 7.SP.3.5

The values below represent the probabilities of events A, B, C, D, and E.

Which events have a probability that indicates the event is unlikely to happen, but not impossible? Select all that apply.

- A. $P(A) = 0\%$
- B. $P(B) = 50\%$
- C. $P(C) = 0.2$
- D. $P(D) = 0.87$
- E. $P(E) = \frac{1}{5}$
- F. $P(F) = \frac{4}{17}$

3. 7.SP.3.6

A bag contains 100 marbles, some red and some purple. Suppose a student, without looking, chooses a marble out of the bag, records the color, and then places that marble back in the bag. The student has recorded 9 red marbles and 11 purple marbles. Using these results, predict the number of red marbles in the bag.

4. 7.SP.3.7

If Zoey has a bag of marbles containing 18 red marbles, how many blue marbles should she add to the bag so that the probability of her drawing a blue marble from the bag is $\frac{1}{4}$?

5. 7.SP.3.8

A fair coin will be tossed three times. What is the probability that two heads and one tail in any order will result?

Day 4

1. 7.EE.2.3

You are going on a road trip over a distance of 3000 miles with three friends. The car consumes 6 gallons of gas per 150 miles and gas costs \$1.20 per gallon.

If you want to split the cost of gas evenly between the four of you, how much should each of you pay?

2. 7.SP.3.5

Allie and Joe are playing a game with a spinner. The spinner is divided into four equal sections. Two of the sections are orange, one is purple, and one is white. When it's Allie's turn, she spins the spinner. What is the probability that the spinner lands on red?

3. 7.SP.3.6

Each of the 20 students in Mr. Anderson's class flipped a coin ten times and recorded how many times it landed on tails. How many tails would a student expect to see out of ten tosses?

4. 7.SP.3.7

Tim has a 6-sided die that contains the numbers 1-6 on each of its sides. Tim rolls the die 48 times. About how many times would you expect Tim to roll a 3?

- A. 5 times
- B. 6 times
- C. 7 times
- D. 8 times

5. 7.SP.3.8

How many different setting combinations are there on a washing machine with the following options?

- regular, delicate, or extra dirty
- hot, warm, or cold water
- regular rinse or extra rinse.

Day 5**1. 7.EE.2.3**

Three students conduct the same survey about the number of hours people sleep at night. The results of the number of people who sleep 8 hours a night are shown below.

- Susan reported that 18 of the 48 people she surveyed get 8 hours sleep a night
- Kenneth reported that 36% of the people he surveyed get 8 hours sleep a night
- Jamal reported that 0.365 of the people he surveyed get 8 hours sleep a night

In which person's survey did the most people sleep 8 hours?

2. 7.SP.3.5

Tyler placed six number tiles labeled 3, 8, 12, 15, 19, and 22 in a box. He picks one of the numbers from the box without looking. What is the probability Tyler will pick a tile labeled with an even number?

- A. $\frac{2}{3}$
- B. $\frac{1}{2}$
- C. $\frac{1}{3}$
- D. $\frac{1}{6}$

3. 7.SP.3.6

If a fair six-sided die is rolled 700 times, approximately how many times can we reasonably expect to roll a 1 or a 2?

4. 7.SP.3.7

A deck of cards contains a total of 30 cards. It contains 7 red cards, 5 yellow cards, and 4 orange cards. The remaining cards are either green or purple.

The probability of choosing a green card from the deck is 0.2. Find the number of green and purple cards to complete the table below.

Red	Yellow	Green	Orange	Purple
7	5		4	

5. 7.SP.3.8

A bag contains 4 red marbles and 2 white marbles. A marble is selected, returned to the bag, and then another marble is selected.

Find $P(\text{red, then white})$.

Day 1

1. 7.EE.2.4

Kevin went bowling with \$25 to spend. He rented shoes for \$5 and paid \$4.00 for each game. Graph the solution set for g , the number of games Kevin could have played.



2. 7.SP.1.1

Hilary and Ivan will collect data to find out where the seventh-grade students should take their field trip. Which group should they survey to collect the most valid data?

- the first 25 students through the lunch line
- ten random people from each seventh-grade class
- all the students in a dance class
- twenty of their friends

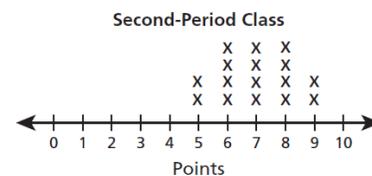
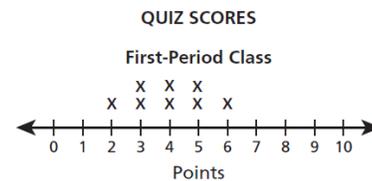
3. 7.SP.1.2

There are 3,000 people in a travel club. A random sample of 50 of the people in the club found that 12 people like vacations to the mountains best. Select statements that are supported by the sample data. Select all that apply.

- A. About one-quarter of the people sampled like mountain vacations best.
- B. About 12% of the people in the travel club like mountain vacations best.
- C. Fewer than 500 people in the entire club would likely say they enjoy mountain vacations best.
- D. An estimated 720 people in the travel club like mountain vacations best.
- E. More than 2,000 people in the travel club would prefer other vacations over mountain vacations.

4. 7.SP.2.3

Ms. Flynn made the line plots below to compare the quiz scores for her first-period math class and her second-period math class. She gave the same quiz to each class.

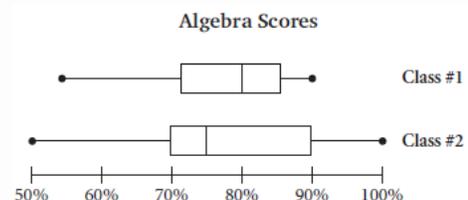


What conclusion can Ms. Flynn make about the performance of her first- and second-period classes?

- The first-period class scores had a greater range than the second-period class scores.
- The second-period class scores had a greater mean absolute deviation than the first-period class scores.
- The first-period class had a higher median score than the second-period class.
- The second-period class scores had a higher mean than the first-period class scores.

5. 7.SP.2.4

Mr. Moore's Algebra classes took a test. The data is shown below.



What can you infer about his two Algebra classes from this data?

Day 2

1. **7.EE.2.4**

For her cell phone plan, Jane pays \$30 per month plus \$0.05 per text. She wants to keep her bill under \$60 per month. How many texts, t , can Heather send each month while staying within her budget?

2. **7.SP.1.1**

The P.E. teacher at Sunshine Middle School wants to know which sports are popular among students in her school. Since it would take so long to ask all of the students, she will survey a group of students. The school has 288 6th graders, 256 7th graders, and 280 8th graders. The P.E. teacher surveys 36 6th graders and 32 7th graders. How many 8th graders should she survey in order for the group to be a representative sample?

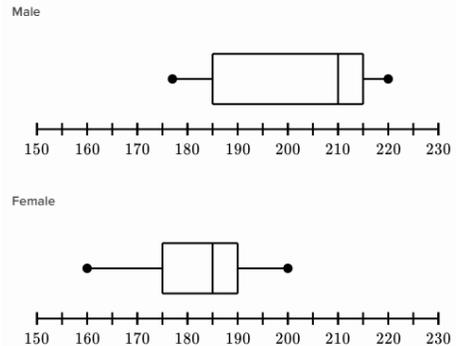
3. **7.SP.1.2**

Latrice randomly selected 25% of the seventh-grade students in her school and asked them their favorite season. Of the students surveyed, 51 chose summer as their favorite season. Based on the data, what is the most reasonable prediction of the number of seventh-grade students in her school who would choose summer as their favorite season?

- A. 15
- B. 75
- C. 150
- D. 200

4. **7.SP.2.3**

Caleb randomly selected 28 male and 28 female professional basketball players. He looked up each player's height (in centimeters) and made a box plot for each gender (shown below).



Describe the visual overlap in the data.

5. **7.SP.2.4**

The data below show the heights of trees (in feet) in parks in different parts of a city.

Tree Heights (east-side parks)	8	12	4	11	24	7	21	9
Tree Heights (west-side parks)	16	20	25	13	21	4	19	18

Which statements accurately describe the height data? Select all that apply.

- A. Trees in the west-side parks are, on average, taller.
- B. The mean absolute deviations are 5.25 feet for the east-side tree data and 4.5 feet for the west-side tree data.
- C. The interquartile range is greater for the west-side tree data.
- D. The data sets have an almost complete overlap.
- E. The means are the same, but the medians are different.

Day 3

1. **7.EE.2.4**

Kathleen bought 4 dresses that each cost the same amount and a pair of jeans that cost \$40. The items she bought cost a total of \$160 before tax was added. Write and solve an equation to find d , the cost of each dress.

2. **7.SP.1.1**

A researcher asked five of his dentist friends if they thought the new Brand X toothpaste that he developed was effective. Four responded "yes." The researcher used the information to write a TV commercial claiming that "4 out of 5 dentists prefer Brand X toothpaste!" Is this a valid inference? Explain.

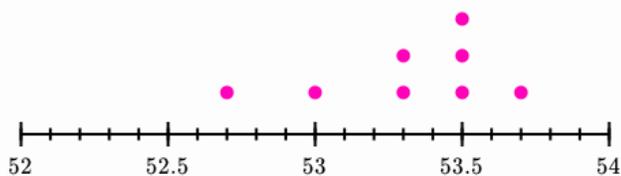
3. **7.SP.1.2**

A department store receives a shipment of 1,500 dishes. Out of a random sample of 10 dishes, 2 are broken. How many dishes would you expect to be broken in the entire shipment?

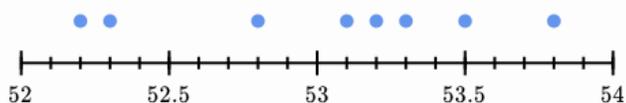
4. **7.SP.2.3**

At the Olympic Games, many events have several rounds of competition. One of these events is the men's 100-meter backstroke. The dot plots show the times (in seconds) of the top 8 finishers in the semifinal and final round at the 2012 Olympics.

Semifinal round:



Final round:



Which information can be gathered from these dot plots? Select all that apply.

(Remember that lower swim times are faster.)

- A. Individually, each of the swimmers swam faster in the finals than they did in the semifinals.
- B. The times in the finals vary noticeably more than the times in the semifinals.
- C. The swimmers had faster times on average in the finals.
- D. One of the swimmers was disqualified from the finals.
- E. The man who swam fastest in the semifinals swam noticeably faster in the finals.

5. **7.SP.2.4**

The two data sets below depict random samples of the management salaries in two companies. Based on the salaries below which measure of center will provide the most accurate estimation of the salaries for each company?

- Company A:

1.2 million, 242,000, 265,500, 140,000, 281,000, 265,000, 211,000

- Company B:

5 million, 154,000, 250,000, 250,000, 200,000, 160,000, 190,000

Day 4

1. 7.EE.2.4

Solve for x .

$$0.5x + 78.2 = 287$$

- A. $x = 104.4$
- B. $x = 417.6$
- C. $x = 495.8$
- D. $x = 730.4$

2. 7.SP.1.1

Each of the samples below is randomly selected from a company with 320 employees. Choose which samples are representative samples for the company. Select all that apply.

- A. 25 employees on the company e-mail list
- B. 25 employees with 10 years of service or more
- C. 25 employees as they begin their shifts at 3:00 pm
- D. 25 employees at a company-wide assembly
- E. 25 employees from the human resources department

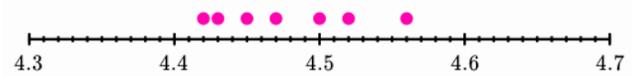
3. 7.SP.1.2

Sixty people are in line for a show. Starting with the 1st person, you ask every 5th person if they bought their ticket in advance. Nine people say yes. Based on the sample, how many people bought tickets in advance?

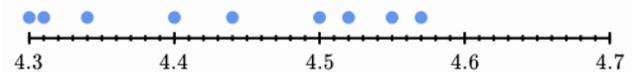
4. 7.SP.2.3

The Baltimore Ravens won the Superbowl in 2013. In the same season, the Kansas City Chiefs had a record of 2 wins and 14 losses. The dot plots below show the 40-yard dash times (in seconds) of the defensive backs on each team's roster. Defensive backs mainly defend against passes, and the 40-yard dash is the main measure of speed used in American football.

Kansas City Chiefs:



Baltimore Ravens:

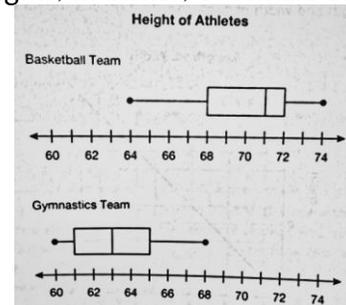


Which pieces of information can be gathered from these dot plots? Select all that apply. (Remember that lower 40-yard dash times are faster.)

- A. The defensive backs on the Ravens are faster on average.
- B. All defensive backs on the Ravens are faster than all defensive backs on the Chiefs.
- C. The speed of the defensive backs on the Ravens varies noticeably more than the speed of the defensive backs on the Chiefs.
- D. The fastest defensive back in the entire league plays for the Ravens.
- E. The Ravens have more defensive backs than the Chiefs.

5. 7.SP.2.4

The box plots below display data about the heights, in inches, of female athletes at a school.



What is the difference of the medians of the teams' heights?

Day 5

1. 7.EE.2.4

Ms. Phelan has only \$42.50 to spend at a clothing store. She wants to buy a shirt that costs \$29, including tax, and some bracelets that cost \$4.50 each, including tax. Write an equation to determine x , the number of bracelets Ms. Phelan could buy.

2. 7.SP.1.1

A bookstore owner wants to know which department to expand. Manager A surveys every 3rd teenager that comes in the store. Manager B surveys every customer on Monday evening. Manager C surveys 25% of the customers chosen at random from the store's mailing list. Which manager's method is the least biased? Explain.

3. 7.SP.1.2

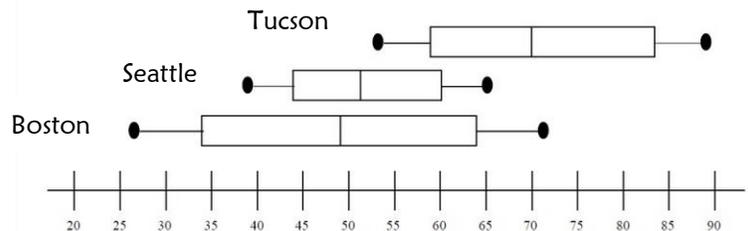
An orange grove has 675 orange trees. Three growers each checked 75 orange trees in different areas of the orchard and noted the number of trees that are ready for picking. Each grower used his or her results to estimate the total number of trees in the orchard that are ready for picking.

- Grower A noted that 11 orange trees ready for picking
- Grower B noted that 18 orange trees ready for picking
- Grower C noted that 13 orange trees ready for picking

Use the information in the samples to find a good estimate for the actual number of orange trees in the orchard that are ready for picking.

4. 7.SP.2.3

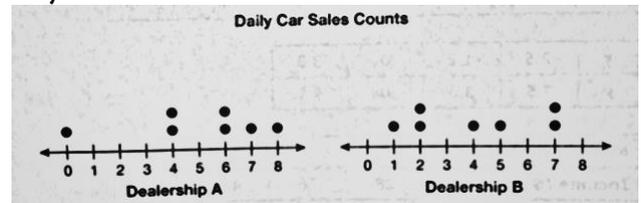
The average daily temperature for each month of the year of three cities is shown below.



What can you conclude from the overlap of these data?

5. 7.SP.2.4

For one week, two car dealerships keep track of the number of cars they sell each day.



Which dealership had the higher mean sales account over the entire week?

Week 1 – Grade 7

	Standard	Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.1.1	A, B, D, E	-6 and 48	No... $2(3a-2)+4=10a-4$	A, E	A, C, E, F
2	7.NS.1.1	0 because a and b are opposites.	15,000 m	below sea level	D	9.75 or $9\frac{3}{4}$ blocks
3	7.NS.1.2	First 3 selections	1	63	-3	D
4	7.NS.1.3	B	\$14.50	C	\$3.07	A, C
5	<i>varies</i>	D	Point at -5	0.44	B	A

Week 2 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.1.2	1.06	B	B	B	Yes; $x + 0.1x$
2	7.EE.2.3	\$933.12	D	5 oz.	B, C, D	\$11.70
3	7.G.1.2	Yes... It is not a unique triangle.	No...	A, C, D	any # > 3	C
4	7.G.1.3	B	C	B	A, D, E	The plane should be passed vertically.
5	<i>varies</i>	D	C	Answers vary	6 x 6 square	D

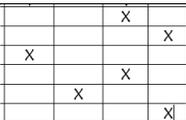
Week 3 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.2.4	$0.67b + 2(2.99) < 10$	Open circle on 6, arrow to left	D	B	A
2	7.RP.1.1	5 min	4 min. 10 sec.	$\frac{1}{5}$ or 0.2 km	0.24 or $\frac{6}{25}$ km	Jayden
3	7.RP.1.2	\$6.32	B	\$50	B	2 different shades
4	7.RP.1.3	B	increase	B, C, E	B	\$254
5	<i>varies</i>	D	C	70 beats per min	D	1.25 or $1\frac{1}{4}c$

Week 4 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.G.1.1	$3\frac{1}{5}$ or 3.2 in	$2\frac{1}{4}$ or 2.25 in	14 mi	*drawing must be 8 units by 12 units on grid	rtΔ w/ $h=6$ and $b=5$
2	7.G.2.4	A	B	30.25π in. ²	707 cm ²	314 ft ²
3	7.G.2.5	A	19°	62°	B, C	24°
4	7.G.2.6	D	A	12.5 sq. units	132 cm ²	A, B, E, F
5	<i>varies</i>	D	C	A, B, D	125 in ³	12.8 m ²

Week 5 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.1.1	5	C	$-7x - 8$	B	
2	7.EE.1.2		D	88%	They are both correct. Christine combined like terms and Peter did not.	
3	7.NS.1.1	A, C, D	$-4\frac{1}{4}$	C, E	47.5 km	10.3 km
4	7.NS.1.2	2.5	A, C, E	Yes...	A, B, E	R, T, T, R, R
5	7.NS.1.3	20 in	-17°C	5 pm	9°F	-20 ft

Week 6 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.G.1.1	120 in or 10 ft	1184 ft	C	A	A, C, D
2	7.G.1.2	U, M, M, U, U	Y, Y, N, N	Yes	rtΔ w/ h=3 and b=5; Yes	B
3	7.G.1.3	40 x 20 rectangle	C	A, D	C, E	Answer will vary: Square prism, square pyramid, cube
4	7.G.2.4	12.84 ft	1760 yd	D	She found the diameter and forgot to divide by 2.; r = 4 ft	50 cm
5	<i>varies</i>	96 in ²	Yes...it just depends which angle is included.	A square	111.375 cm ²	No...

Week 7 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.G.2.5	76°	B	29°	12.5°	23°
2	7.G.2.6	729,000 cm ²	54 m ²	203 m ²	45,489.6 lb	216.75 in ²
3	7.RP.1.1	C	9/10 or 0.9 mi/min	5 gal/min or 0.2 min/gal	C	6 mph; 10 mph; 7.5 mph
4	7.RP.1.2	B	\$35 per sculpture	No. The ratio of cost to oranges is not constant.	9 cans	Yes. The ratio of time to number of potatoes is constant.
5	7.RP.1.3	Sports Expert	B, C, D	She saved more on her suit purchase.	\$715	1 ½ or 1.5 tsp

Week 8 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.2.3	12 forks	C	7.5 mi	\$36	Susan's survey
2	7.SP.3.5	100%	B	C, E, F	0%	B
3	7.SP.3.6	A, B, E, F	A	45 red and 55 purple marbles	5 times	About 233 times
4	7.SP.3.7	½, 50%, or 0.5	B, E	6 blue marbles	D	6 green; 8 purple
5	7.SP.3.8	A	B	3/8	18 combinations	2/9

Week 9 – Grade 7

		Day 1	Day 2	Day 3	Day 4	Day 5
1	7.EE.2.4	closed circle on 5, arrow to left	t < 600	4d+40=160 d=\$30	B	4.5x+29=42.5
2	7.SP.1.1	B	35	No. His sample was biased and too small.	A, D	Manager C; Manager A has a bias and Manager B took a convenience sample.
3	7.SP.1.2	A, D, E	D	300 dishes	45 people	126 trees
4	7.SP.2.3	D	Answers will vary	B, C	A, C, E	Answers will vary
5	7.SP.2.4	Answers will vary	A, B, D	Median; Each set has an outlier, a salary in the millions.	8 in	Dealership A