Entering Grade 7 Summer Math 2026

If you choose to complete this packet instead of the “Khan Get Ready for Grade 7”, please return your completed packet to your teacher in the Fall. Your goal is to complete **8 out of 11 assignments**.

Assignment: Understanding unit rates (6.RP.A.2 set A)

1) Mr. Levy is the computer teacher at Marco's school. He is teaching Marco and other students how to improve their typing skills. Marco typed 140 words in 4 minutes during their most recent class. Which ratio shows the correct unit rate at which Marco is typing?
    a) 1:35
    b) 35:1
    c) 70:2
    d) 140:1

2) Ramona counted that her heart beat 25 times in 20 seconds. What is Ramona's rate of heart beats per minute?
    a) 20 beats per minute
    b) 25 beats per minute
    c) 60 beats per minute
    d) 75 beats per minute

3) James drove 200 miles in 4 hours. If he continues to travel at this rate, how long will it take James to travel 150 more miles?
    a) 1.5 hours
    b) 3 hours
    c) 4 hours
    d) 5 hours

4) The chart below shows the cost of the three different-sized boxes of chicken nuggets that are available at The Chicken Shack. Considering all three sizes, what is the **least** cost per nugget?

Box Sizes and Costs of Chicken Nuggets

Box Size	Number of Nuggets in Box	Cost of Box (dollars)
Small	5	1.25
Medium	9	2.07
Large	15	3.15

a) 0.15
b) 0.21
c) 0.23
d) 0.25

5) Three trucks are delivering bicycles from New York, NY to Pittsburgh, PA. The drivers take breaks along the way. Truck A has driven 400 miles in 8 hours. Truck B has driven 360 miles in 6 hours. Truck C has driven 385 miles in 7 hours. Which truck is driving at the fastest unit rate?

a) Truck A
b) Truck B
c) Truck C
d) Truck A and B have the same unit rate.

Assignment: Equivalent ratios (6.RP.A.3a set A)

1) Ms. Brown needs 8 eggs in order to make 2 cakes. What is the total number of cakes she could make with 24 eggs?

2) Paula uses the rule below to estimate the distance of a thunderstorm from her location.

Paula's Rule

Count the number of seconds between seeing the lightning and hearing the thunder. For every 5 seconds counted, the storm is 1 mile away.

Based on Paula's rule, which of the following tables shows the relationship between the number of seconds counted and the distance of the thunderstorm?

A. **Thunderstorm Distance**

Time (in seconds)	Distance (in miles)
0	0
5	1
10	2
15	3
20	4

B. **Thunderstorm Distance**

Time (in seconds)	Distance (in miles)
0	1
5	2
10	3
15	4
20	5

C. **Thunderstorm Distance**

Time (in seconds)	Distance (in miles)
1	0
2	5
3	10
4	15
5	20

D. **Thunderstorm Distance**

Time (in seconds)	Distance (in miles)
0	0
1	5
2	10
3	15
4	20

3) Acme Doll Company makes the Super Hero Doll that sells for $10. The table below shows that the profit the company earns is based proportionally on the number of dolls sold.

Sales (number of dolls)	1,000	1,500	3,000	4,500
Profits	$50	$75	$150	$223

What is the profit for sales of 15,000 Super Hero dolls?

4) Brian made $56.00 by babysitting for 7 hours. At this rate, for how many hours would he have to babysit to make $72.00?

5) How many yards are in 27 feet?
   a) 2.25 yds.
   b) 3 yds.
   c) 4 yds.
   d) 9 yds.

Assignment: Solving problems involving division of fractions (6.NS.A.1 set B)

1) What is 1/3 ÷ 2/5? Show your answer in simplest form.
    a) 5/6
    b) 2/15
    c) 3/15
    d) 6/5

2) What is 1/9 ÷ 5/6? Show your answer in simplest form.
    a) 2/15
    b) 6/45
    c) 5/54
    d) 17/18

3) Brian purchased a pizza and shared 3/4 of the pizza with his friends. Each friend received 1/4 of the pizza. With how many friends did Brian share his pizza? Be sure to show your answer in simplest form.
    a) 3
    b) 3/16
    c) 1/16
    d) 1

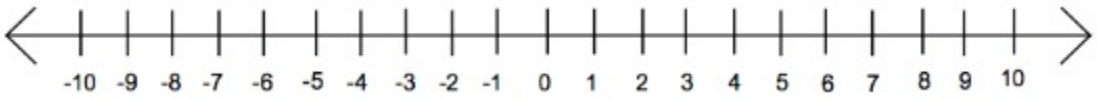
4) Marty is reading the label on the Delish Yogurt container. The label states that 1 serving is equal to 3/4 of a cup of yogurt. There is only 2/3 of a cup of yogurt remaining in the container. How many 3/4 cup servings remain in the container? Be sure to show your answer in simplest form.
    a) 8/9 of a serving
    b) 9/8 of a serving
    c) 1/2 of a serving
    d) 3/4 of a serving

5) Jesse is planting a vegetable garden. The area of the garden is 16 square yards. Each vegetable plant will need 1/9 of a square yard to grow in. How many vegetable plants will Jesse be able to plant in her garden?
    a) 144 plants
    b) 1 7/9 plants
    c) 8/9 plants
    d) 72 plants

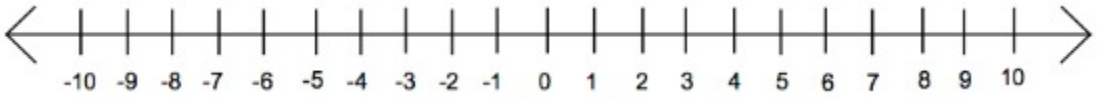
Assignment: Understanding opposites of integers on number lines and the coordinate plane (6.NS.C.6 set A)

1) Point A has coordinates of (-2, 7). What are the coordinates of the reflection of point A across the y-axis?
    a) (2, -7)
    b) (-2, 7)
    c) (2, 7)
    d) (-2, -7)

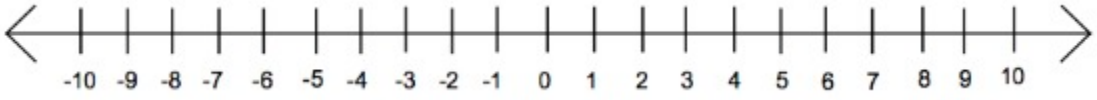
2) What rational number is the opposite of 8?



3) -(-3) = ?



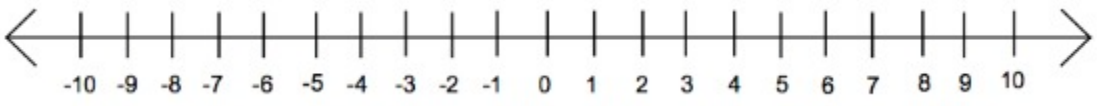
4) What rational number is the opposite of 0?



    a) 1
    b) -0
    c) 0
    d) 10

5) Which shows the following rational numbers in order from least to greatest?

3, 8, -4, 0, -2, 5



a) -4, -2, 0, 3, 5, 8

b) 0, -2, 3, -4, 5, 8

c) 8, 5, 3, 0, -2, -4

d) 8, 5, -4, 3, -2, 0

Assignment: Understanding ordering and absolute value of rational numbers (6.NS.C.7 set A)

1) Find the absolute value of 25 by completing the expression |25| = _____.

2) What is the value of the expression below?

   |15| + |-10|

   a) 25
   b) 5
   c) -25
   d) -5

3) What is the value of the expression below?

   |-34| + |-66|

   a) 34
   b) -100
   c) 32
   d) 100

4) The lowest recorded temperatures for three U.S. cities are shown in the table below. Which inequality shows why the lowest recorded temperature in Hartford is colder than the lowest recorded temperature in Boston?

Lowest Recorded Temperatures

Boston	–12°F
Hartford	–26°F
Mobile	3°F

   a) -12 < 3
   b) -12 > 3
   c) -26 > -12
   d) -26 < -12

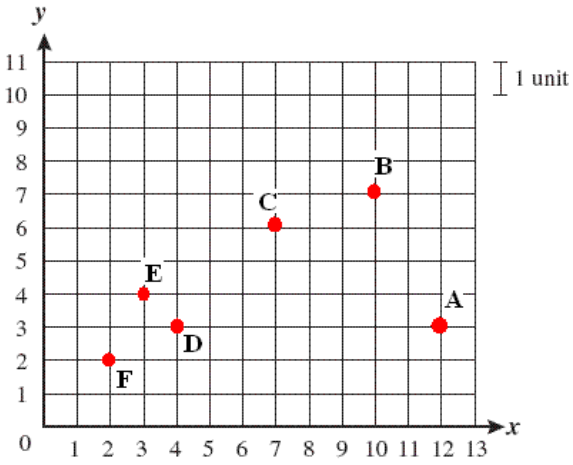
5) Mr. Williams runs his own business as a professional painter. He was reviewing the accounts of five of his customers. The negative numbers in the "Unpaid" column show the amount of money still owed to Mr. Williams. Which customer owes him the most money?

Name of Customer	Amount Paid	Amount Unpaid
Cathy's Cupcake Shoppe	$500.00	(-$700.00)
Mr. Bernard	$400.00	$0.00
Lucille Roman	$50.00	(-$200.00)
First Valley Bank	$600.00	(-$100.00)
Langley Apartments	$1,200.00	$0.00

a) Langley Apartments
b) Mr. Bernard
c) Cathy's Cupcake Shoppe
d) First Valley Bank

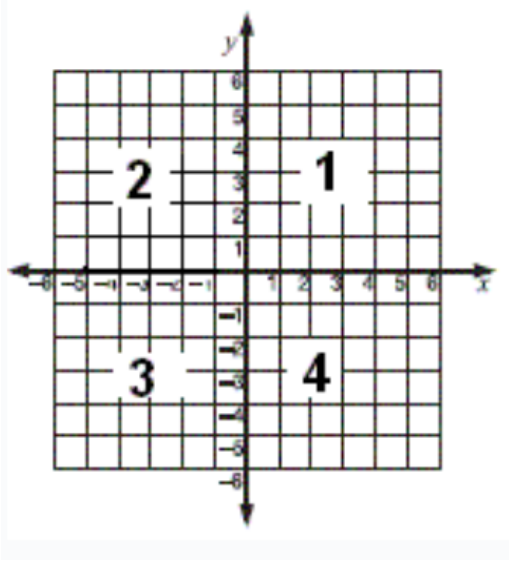
Assignment: Understanding opposites of integers on number lines and the coordinate plane (6.NS.C.6 set B)

1) On the coordinate grid below, which point is plotted at (4, 3)?



a) Point A
b) Point B
c) Point C
d) Point D

2) In which quadrant is the point (2, -2)?

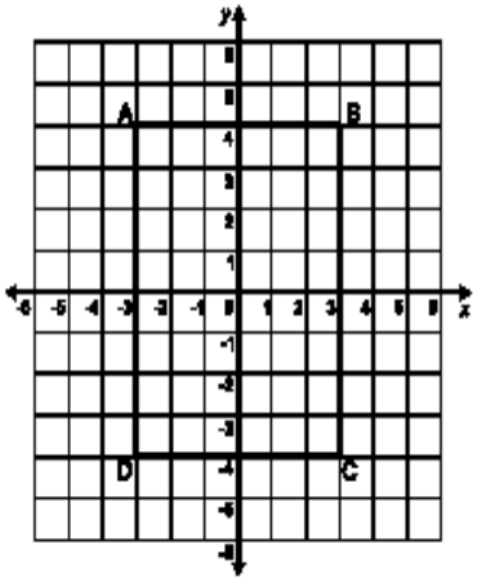


a) 1
b) 2
c) 3
d) 4

3) In which quadrant is the point (-2, -5)?

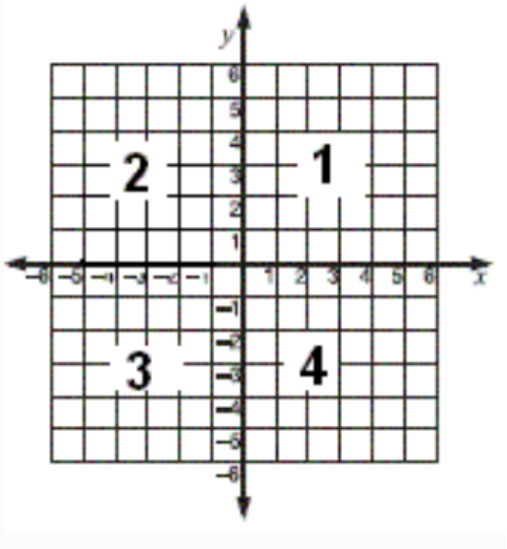
a) 1
b) 2
c) 3
d) 4

4) Which vertex of the rectangle has the coordinates (-3, 4)?



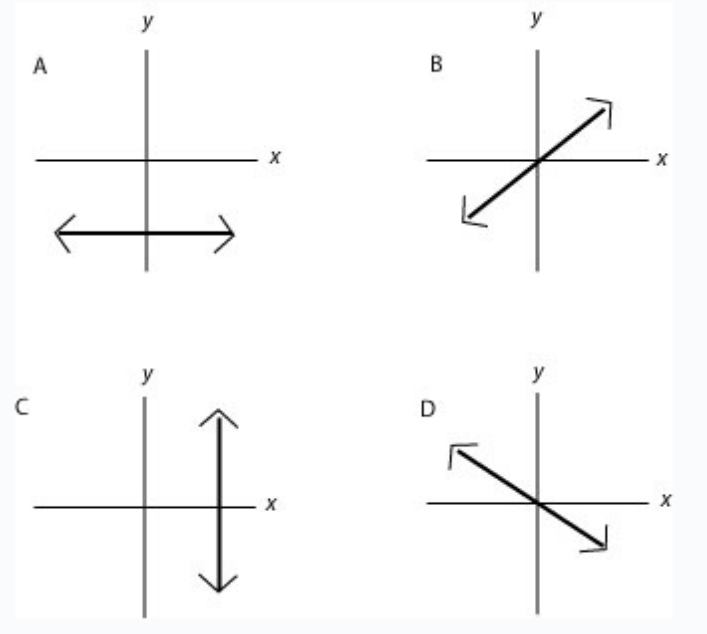
a) Vertex A
b) Vertex B
c) Vertex C
d) Vertex D

5) Point A at (5, 3) is reflected across the x-axis into Quadrant 4. What are the coordinates of the resulting point of this reflection?



a) (-5, 3)
b) (5, -3)
c) (-5, -3)
d) (0, 0)

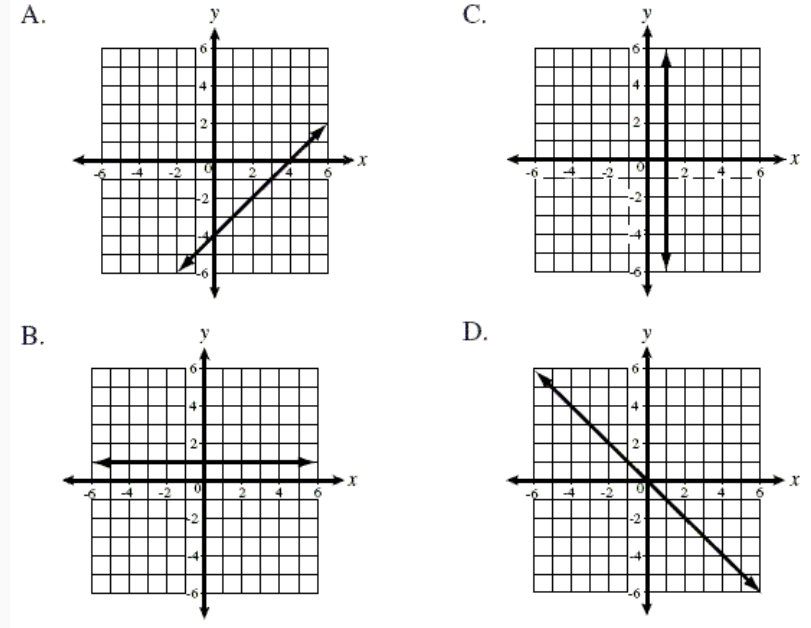
6) A line passes through quadrants 1 and 3 of the coordinate plane. Which of the graphs could be that line?



a) A
b) B
c) C
d) D

7) Which graph contains the points given in the table below?

x	y
-4	1
0	1
4	1



a) A
b) B
c) C
d) D

Assignment: Writing, reading, and evaluating expressions in which letters stand for numbers (6.EE.A.2 set B)

1) Evaluate the following for x = 9: 50 - 4x

2) Which statement describes the expression 4(x+3)?
   a) The sum of two terms 4x and 3
   b) The product of two terms 4 and x+3
   c) The product of two terms 4x and 3
   d) The sum of two terms 4 and x+3

3) At her job, Alexa is paid $12.00 per hour. When she drives her car for work, she is paid an additional 32.5 cents per mile. The expression below can be used to find the amount she is paid, in dollars, when she works for h hours and drives m miles in her car.

   12h + 0.325m

   How much is Alexa paid on a day when she works 3 hours and drives 200 miles in her car?

   a) $36.00
   b) $65.00
   c) $101.00
   d) $236.00

4) Irina currently exercises 135 minutes each week. She is planning to increase that by 15 minutes every week from now on. The expression **15w + 135** can be used to find the number of minutes she will exercise during each successive week. Based on the expression, how many minutes will Irina exercise when **w = 20**?

5) The expression below represents the height, in feet, of a ball t seconds after it is thrown into the air.

$96t - 16t^2$

What is the height of the ball 3 seconds after it is thrown into the air?

a) 80 feet
b) 144 feet
c) 192 feet
d) 432 feet

6) Pierre's class is taking a field trip to the Eiffel Tower. Pierre read that to reach the top of the tower he must climb 1665 steps, each of which is 8 inches tall. Pierre weighs 125 pounds. How many foot-pounds of work will he have to perform to climb to the top of the tower?

Definition of Work

The amount of work, W, done to lift an object that weighs p pounds through a vertical distance of d feet is given by

$$W = p \cdot d$$

where W is given in units called foot-pounds.



The Eiffel Tower

Assignment: Applying properties of operations to generate equivalent expressions (6.EE.A.3 set A)

1) Simplify the expression completely: $4b - 2 + 2(b + 1)$
    a) $6b$
    b) $6b - 1$
    c) $2b - 4$
    d) $6b + 4$

2) Find the product: $(y + 11)(-3)$
    a) $-3y - 33$
    b) $-3y + 33$
    c) $3y - 33$
    d) $3y + 33$

3) Simplify the expression completely: $5(w - 4) + w + 8$
    a) $6w + 4$
    b) $6w + 28$
    c) $6w - 12$
    d) $6w - 28$

4) Find the product: $-4(2n - 7)$
    a) $8n + 28$
    b) $8n - 28$
    c) $-8n + 28$
    d) $-8n - 28$

5) Simplify the expression completely: 5a - 2(2 + a) + 3a

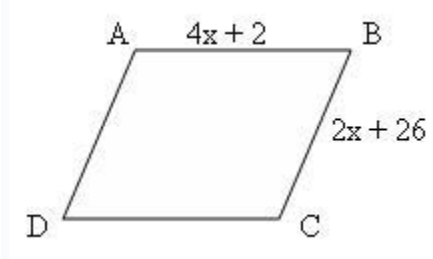
a) 3a - 4

b) 6a - 4

c) 7a - 4

d) 10a - 4

6) ABCD is a rhombus. What is the perimeter of the figure?



Assignment: Identifying when two expressions are equivalent (6.EE.A.4 set A)

1) Identify the algebraic expression equivalent to the expression 8(2n) + 5n
    a) 15n
    b) 16n
    c) 21n
    d) 56n

2) Identify the algebraic expression equivalent to the expression 5(a + 1)
    a) 17a
    b) a + 17
    c) 5a + 12
    d) 5a + 60

3) Identify the algebraic expression equivalent to the expression y + 2y + 3(y + 1)
    a) 5y + 1
    b) 5y + 3
    c) 6y + 1
    d) 6y + 3

4) Identify the algebraic expression equivalent to the expression 5z(z + 7)
    a) $5z^2 + 7$
    b) $5z^2 + 35$
    c) $5z^2 + 7z$
    d) $5z^2 + 35z$

5) Identify the algebraic expression equivalent to the expression p + 3p + 5p

   a) 8p
   b) 9p
   c) $8p^3$
   d) $15p^3$

6) Which of the following statements is **false**?

   a) 12 + (4 - 1) = (12 + 4) - 1
   b) -12 + 12 = 12 + (-12)
   c) (-12)(-12)(-12) = 3(-12)
   d) 12(4 - 1) = 12(4) - 12(1)

Assignment: Solving problems by writing and solving equations (6.EE.B.7 set B)

1) In the equations below, each shape stands for the same number each time that it appears.

$\square + 6 = 18$ If both of these equations are true, what is the value of $\triangle$?

$\triangle \times 3 = \square$

a) 4
b) 6
c) 8
d) 12

2) Solve the equation for c. **c + 15 = 75** What is the value of c?

a) 60
b) 70
c) 90
d) 100

3) Solve the equation for x. **x + 8 = 13** What is the value of x?

a) 4
b) 5
c) 21
d) 22

4) Solve the equation for x. **14x = 42**

a) x = 3
b) x = 4
c) x = 6
d) x = 28

5) Solve the equation for t. **6.2 = t + 4**

a) t = -10.2
b) t = -2.2
c) t = 2.2
d) t = 10.2

Assignment: Writing an inequality in the form x > c (6.EE.B.8 set B)

1) Charles owes Betty more than $39. If c is the amount of money that Charles owes Betty, which option best represents this situation?
   a) c > 39
   b) c = 39
   c) c < 39
   d) c - 39

2) Shauna babysits her brother after school each day for more than 2 hours. Which inequality below best shows how many hours Shauna babysits her brother after school over the course of 5 days? Let h equal the total number of hours Shauna babysits her brother during those 5 days.
   a) 5h > 2
   b) 5h ≥ 2
   c) h > 10
   d) h ≥ 10

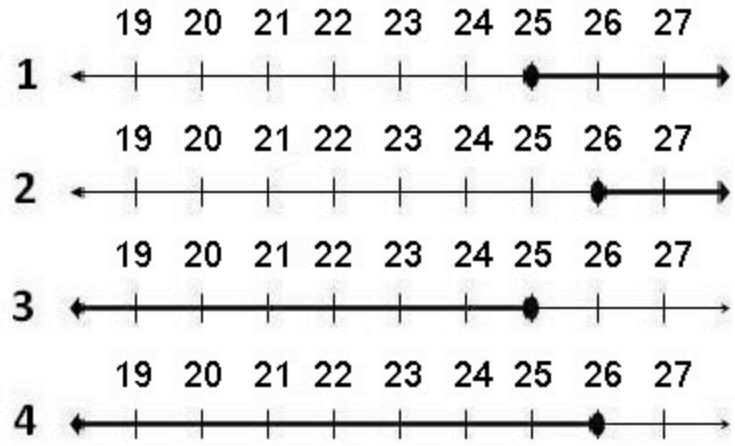
3) Which statement below best corresponds to the information shown in the number line?



   a) Janet has more than 5 dogs.
   b) There are at least 5 students in Mr. Rossi's class.
   c) There are less than 5 people waiting on line in the store.
   d) In an experiment, the temperature must be less than or equal to 5 degrees Celcius.

4)

During a winter storm in Alaska, a reporter stated that a particular town received at least 25 inches of snow in one day. Which inequality below best represents this situation?



a) Inequality 1
b) Inequality 2
c) Inequality 3
d) Inequality 4

5) United States citizens must be at least 18 years of age in order to register to vote. Which inequality shows this constraint if the variable v represents voting age in the U.S. ?

a) $18 \geq v$
b) $v \geq 18$
c) $18 > v$
d) $v > 18$