

Class Name : **Math 6**

Instructor Name : **Ms. Goad**

Student Name : _____

Instructor Note :

1. Order these numbers from least to greatest.

3.27 , 3.1072 , 3.7 , 3.209

2. Write 0.7 as a fraction.

Do not try to simplify your answer.

3. Estimate $18.682 + 4.56$ by first rounding each number to the nearest tenth.

4. Tony bought three books at a bookstore. Here are their prices (in dollars).

1.2 , 10.9 , 17

What is the total amount Tony paid at the bookstore?

5. Subtract.

59 – 4.9

6. Multiply.

$$\begin{array}{r} 3.98 \\ \times \quad 7 \\ \hline \end{array}$$

7. Suppose Abdul has 7.68 pounds of seed. If it takes 6.4 pounds of seed to plant one acre of grass, how many acres of grass can be planted?

8. A store owner has 31.2 pounds of candy. If he splits the candy equally into 6 boxes, how many pounds of candy will each box contain?

9. A hot air balloon flew through the sky.

The table gives increases in the balloon's altitude (in feet) for five time periods.

Use the table to answer the questions.

Time period	Increase in altitude (feet)
Period 1	-61
Period 2	0
Period 3	-370
Period 4	109
Period 5	261

(a) During which time period did the balloon move upward the most?

- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

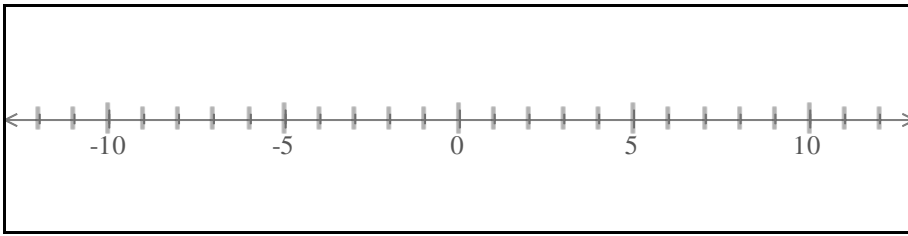
(b) During which time period did the balloon move downward the most?

- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

(c) What did it mean for the balloon to have an increase in altitude of 0 feet?

- The balloon moved neither upward nor downward.
- The balloon moved downward.
- The balloon moved upward.

10. On the number line below, plot -8 and the opposite of -8 .



11. Subtract.

$$4 - 6 = \boxed{}$$

$$-1 - 1 = \boxed{}$$

12. Subtract.

$$-6 - (-2) = \boxed{}$$

$$9 - (-2) = \boxed{}$$

13. Add.

$$49 + (-34) =$$

$$-30 + (-41) =$$

14. Evaluate the following.

$$|-6 + 7| =$$

$$|-6| + 7 =$$

15. Kala is riding in a bike race that goes through a valley and a nearby mountain range.

The table gives the altitudes (in feet above sea level) for the five checkpoints in the race.

Use the table to answer the questions.

Checkpoint	Altitude (feet above sea level)
1	823
2	1659
3	-213
4	3159
5	-45

(a) Compare the altitudes of Checkpoint 3 and Checkpoint 5 using $<$, $>$, or $=$.

$$-213 _ -45$$

What is the meaning of the inequality above?

- Checkpoint 3 is higher than Checkpoint 5.
- Checkpoint 3 is lower than Checkpoint 5.

(b) Compare the altitudes of Checkpoint 1 and Checkpoint 4 using $<$, $>$, or $=$.

$$823 _ 3159$$

What is the meaning of the inequality above?

- Checkpoint 4 is higher than Checkpoint 1.
- Checkpoint 4 is lower than Checkpoint 1.

16. Find each of the numbers below.

Simplify your answers as much as possible.

The opposite of 0:

The opposite of 6:

The opposite of the opposite of 1:

17. The table below gives the monthly increases in users (in thousands) over five months for a social networking company.

Use the table to answer the questions.

Month	Increase in users (in thousands)
June	276
July	-319
August	-102
September	-369
October	15

(a) Which month had the smallest change in the number of users?

- June
- July
- August
- September
- October

(b) Which month(s) had a gain in users, and fewer than 75,000 users were gained?

- June
- July
- August
- September
- October

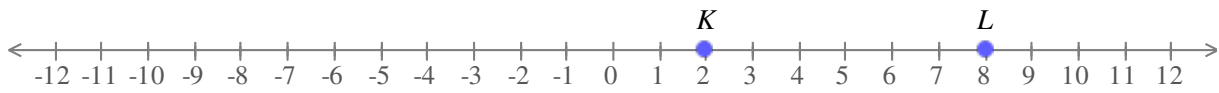
18. Evaluate the following.

$$|15| = \square$$

$$|-11| = \square$$

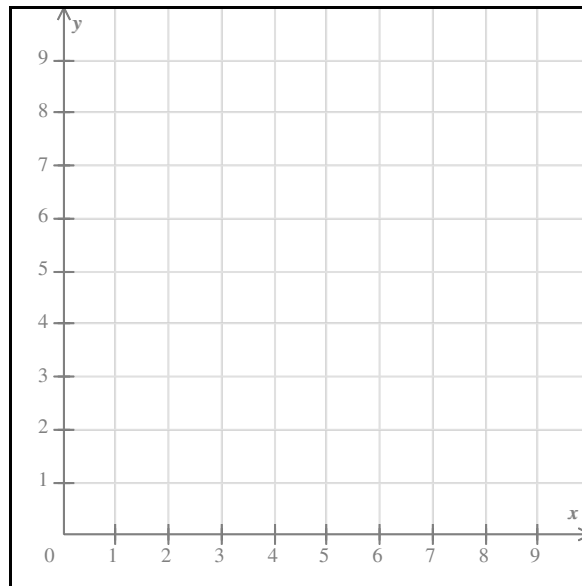
19. Find all numbers whose absolute value is 5.

20. Find the distance between K and L on the number line below.

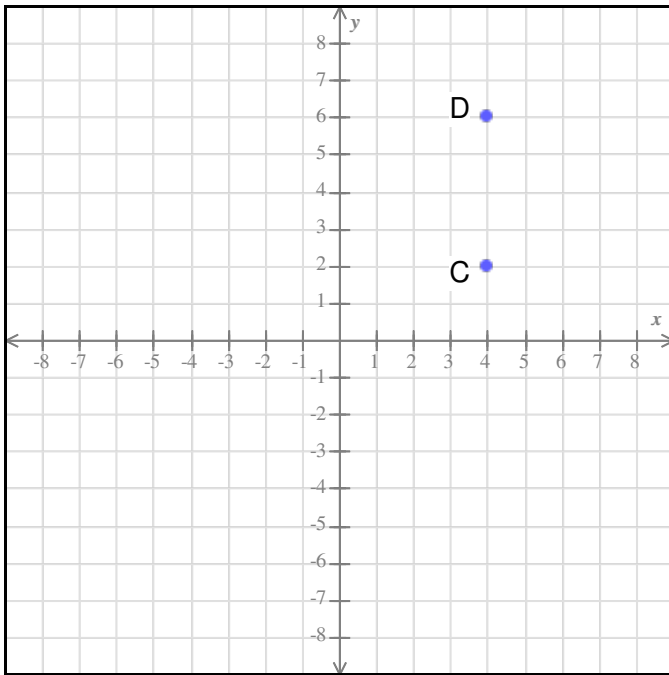


Distance: ____

21. Using the pencil, plot the point $(5, 1)$.

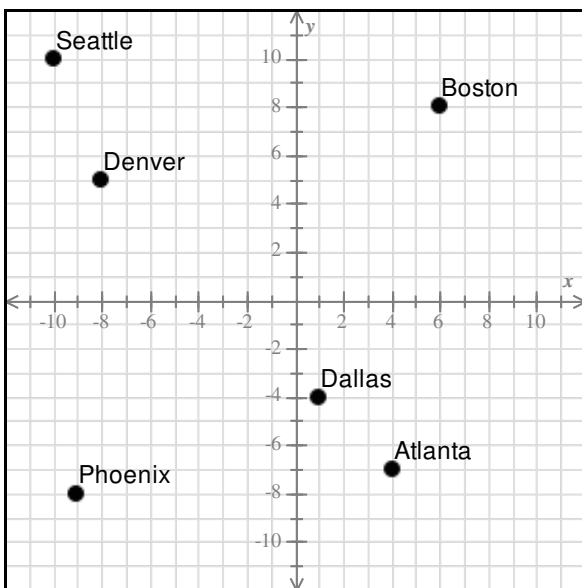


22. Find the distance between point C and point D .

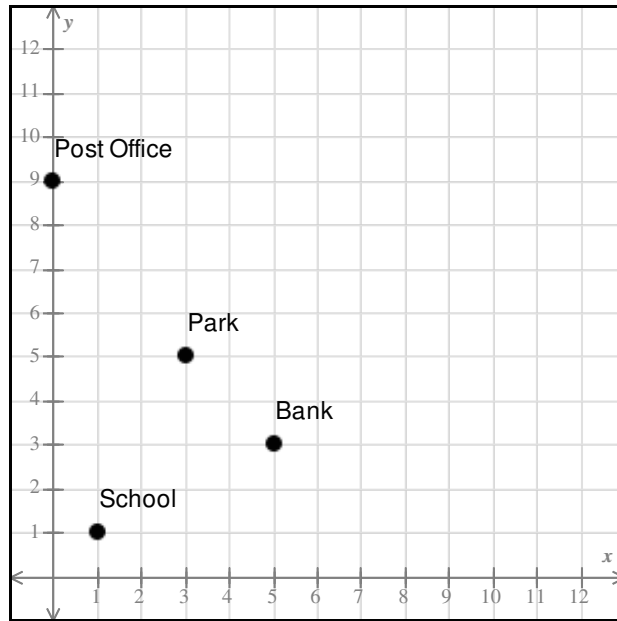


Distance: _____

23. Give the location of Seattle as an ordered pair (x, y) .

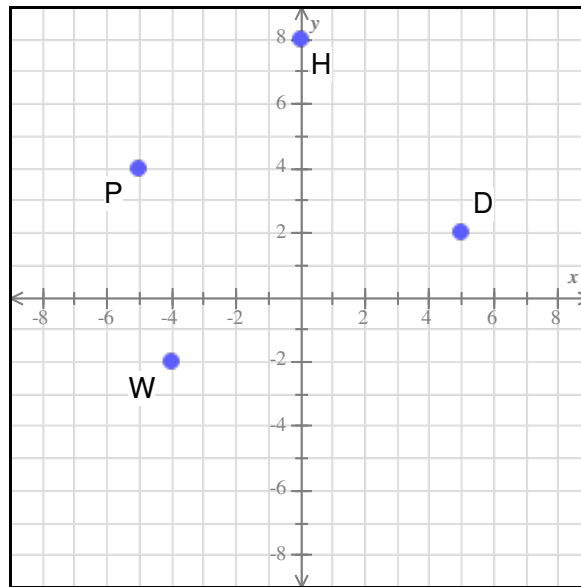


24. Write an ordered pair for the location of the Park.



$(x, y) = (\square, \square)$

25. Name the quadrant or axis where each point lies.



Point D: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis	Point H: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis
Point P: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis	Point W: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis

26. Name the quadrant or axis where each point lies.

$(5, -2)$: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis	$(-3, -2)$: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis
$(0, -8)$: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis	$(-5, 6)$: - Quadrant I - Quadrant II - Quadrant III - Quadrant IV - x-axis - y-axis

27. Put a check by all the prime numbers.

<input type="checkbox"/>	8
<input type="checkbox"/>	9
<input type="checkbox"/>	13
<input type="checkbox"/>	22
<input type="checkbox"/>	23
<input type="checkbox"/>	27
<input type="checkbox"/>	None of the above

28. Write 54 as a product of prime factors.

29. Ms. Diaz wrote a test. Part A had true/false questions, each worth 8 points. Part B had multiple choice questions, each worth 6 points. She made the number of points for Part A equal the number of points for Part B. It was the least number of points for which this was possible.

Answer the following questions.

How many questions did Part A have?

_____ questions

How many questions did Part B have?

_____ questions

How many points was each part worth?

_____ points

30. For each number below, is it even or odd?

	Odd	Even
58	<input type="radio"/>	<input type="radio"/>
863	<input type="radio"/>	<input type="radio"/>
86	<input type="radio"/>	<input type="radio"/>
75	<input type="radio"/>	<input type="radio"/>
154	<input type="radio"/>	<input type="radio"/>

31. Answer the questions below. Be sure to mark *all* answers that apply.

	765	654	659	None of these
Which numbers are divisible by 2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which numbers are divisible by 10?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which numbers are divisible by 5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. Find the greatest common factor of 8 and 32.

33. Find the least common multiple (LCM) of 7 and 28.

34. Shen sells boxes of cookies for \$3 each. Amy sells boxes of cookies for \$7 each. Each of them sold the same dollar amount. It was the smallest dollar amount for which this was possible.

Answer the following questions.

How many boxes did Shen sell?

_____ boxes

How many boxes did Amy sell?

_____ boxes

What was the dollar amount each of them sold?

\$ _____

35. Write the following ratio using two other notations.

9 to 8

Use only the numbers above (not any others).

Notation one: _____

Notation two: _____

36.



(a) What is the ratio of white marbles to all marbles?

(b) What is the ratio of black marbles to all marbles?

37. The ratio of males to females at a company is 3 : 7.

Check all statements that must be true based on the statement above.

If none of the statements is true, check "None of the above".

<input type="checkbox"/> There are 7 males to every 3 females at the company.
<input type="checkbox"/> There are 3 females to every 7 males at the company.
<input type="checkbox"/> There are 7 females to every 3 males at the company.
<input type="checkbox"/> For every 7 males at the company, there are 3 females.
<input type="checkbox"/> None of the above

38. Write the ratio as a fraction in simplest form, with whole numbers in the numerator and denominator.

49 mi to 56 mi

39. Alonzo, Ivan, and Michael made flyers last Saturday. The table below shows the number of flyers each person made and how much time each person spent.

	Alonzo	Ivan	Michael
Number of flyers	3	10	7
Time (minutes)	27	60	56

Write the time spent per flyer for each person. Then determine who worked the fastest.

Time spent per flyer by Alonzo: ____ minutes Time spent per flyer by Ivan: ____ minutes Time spent per flyer by Michael: ____ minutes Select the person who worked the fastest. <input type="radio"/> Alonzo <input type="radio"/> Ivan <input type="radio"/> Michael

40. Multiply.

$$\frac{8}{9} \times 18$$

41. Fill in the blank to make the fractions equivalent.

$$\frac{1}{6} = \frac{\quad}{12}$$

42. Fill in the blank to make the two fractions equivalent.

$$\frac{5}{6} = \frac{\quad}{36}$$

43. Write $\frac{6}{8}$ in simplest form.

44. Write the fraction $\frac{9}{63}$ in simplest form.

45. Let's compare $\frac{5}{6}$ and $\frac{8}{9}$. First, write the fractions with the same denominator.

$$\frac{5}{6} = \frac{\square}{\square} \quad \frac{8}{9} = \frac{\square}{\square}$$

Then, use $<$, $=$, or $>$ to compare the fractions.

$$\frac{5}{6} \square \frac{8}{9}$$

46. Martina built 3 wooden toys. Each toy had a mass of $\frac{5}{6}$ kilograms.

What was the total mass of the toys that she built?

Write your answer in simplest form.

47. Multiply. Write your answer as a fraction in simplest form.

$$\frac{5}{9} \times \frac{3}{2}$$

48. Find the reciprocals of the numbers below.

The reciprocal of 4 is .

The reciprocal of $\frac{1}{7}$ is .

49. Divide. Write your answer in simplest form.

$$\frac{3}{14} \div \frac{7}{10}$$

50. Evaluate. Write your answer as a fraction in simplest form.

$$\left(\frac{5}{3}\right)^3$$

51. Rewrite 4×4 using an exponent.

52. Evaluate.

$$2^4$$

Math 6 Practice Guide - Midterm 2018 #1 Answers for class Math 6

1. $3.1072 < 3.209 < 3.27 < 3.7$

2. $\frac{7}{10}$

3. 23.3

4. \$29.1

5. 54.1

6. 27.86

7. 1.2 acres

8. 5.2 pounds

9.

(a) During which time period did the balloon move upward the most?

- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

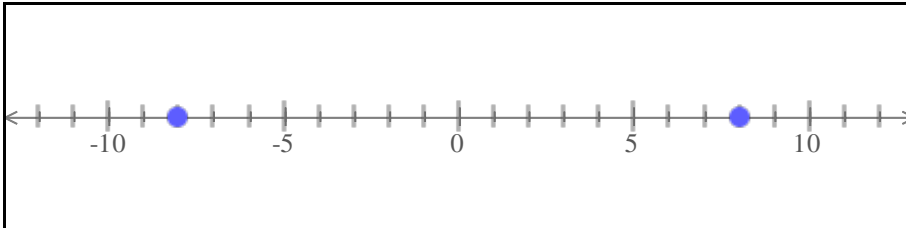
(b) During which time period did the balloon move downward the most?

- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

(c) What did it mean for the balloon to have an increase in altitude of 0 feet?

- The balloon moved neither upward nor downward.
- The balloon moved downward.
- The balloon moved upward.

10.



11.

$$4 - 6 = -2$$

$$-1 - 1 = -2$$

12.

$$-6 - (-2) = -4$$

$$9 - (-2) = 11$$

13.

$$49 + (-34) = 15$$

$$-30 + (-41) = -71$$

14.

$$|-6 + 7| = 1$$

$$|-6| + 7 = 13$$

15.

(a) Compare the altitudes of Checkpoint 3 and Checkpoint 5 using $<$, $>$, or $=$.

$$-213 < -45$$

What is the meaning of the inequality above?

- Checkpoint 3 is higher than Checkpoint 5.
- Checkpoint 3 is lower than Checkpoint 5.

(b) Compare the altitudes of Checkpoint 1 and Checkpoint 4 using $<$, $>$, or $=$.

$$823 < 3159$$

What is the meaning of the inequality above?

- Checkpoint 4 is higher than Checkpoint 1.
- Checkpoint 4 is lower than Checkpoint 1.

16. The opposite of 0: 0

The opposite of 6: -6

The opposite of the opposite of 1: 1

17.

(a) Which month had the smallest change in the number of users?

- June
- July
- August
- September
- October

(b) Which month(s) had a gain in users, and fewer than 75,000 users were gained?

- June
- July
- August
- September
- October

18.

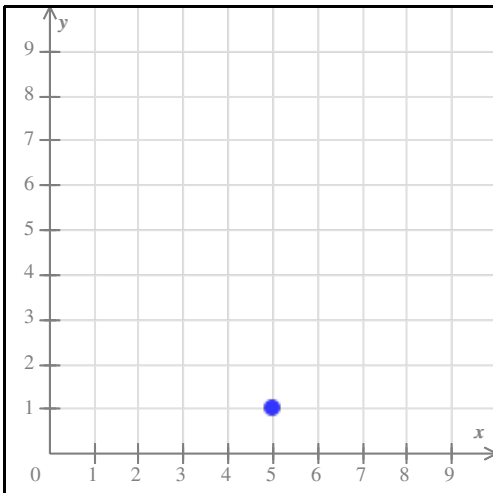
$$|15| = 15$$

$$|-11| = 11$$

19. 5, -5

20. Distance: 6

21.



22. Distance: 4

23. $(x, y) = (-10, 10)$

24. $(x, y) = (3, 5)$

25.

Point D: - Quadrant I	Point H: - y-axis
Point P: - Quadrant II	Point W: - Quadrant III

26.

$(5, -2)$: - Quadrant IV	$(-3, -2)$: - Quadrant III
$(0, -8)$: - y-axis	$(-5, 6)$: - Quadrant II

27.

<input type="checkbox"/>	8
<input type="checkbox"/>	9
<input checked="" type="checkbox"/>	13
<input type="checkbox"/>	22
<input checked="" type="checkbox"/>	23
<input type="checkbox"/>	27
<input type="checkbox"/>	None of the above

28. $54 = 2 \times 3 \times 3 \times 3$

29. How many questions did Part A have?

3 questions

How many questions did Part B have?

4 questions

How many points was each part worth?

24 points

30.

	Odd	Even
58	<input type="radio"/>	<input checked="" type="radio"/>
863	<input checked="" type="radio"/>	<input type="radio"/>
86	<input type="radio"/>	<input checked="" type="radio"/>
75	<input checked="" type="radio"/>	<input type="radio"/>
154	<input type="radio"/>	<input checked="" type="radio"/>

31.

	765	654	659	None of these
Which numbers are divisible by 2?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Which numbers are divisible by 10?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Which numbers are divisible by 5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. 8

33. 28

34. How many boxes did Shen sell?

7 boxes

How many boxes did Amy sell?

3 boxes

What was the dollar amount each of them sold?

\$21

35.

Notation one: $\frac{9}{8}$

Notation two: 9 : 8

36.

(a) 2 : 11

(b) 9 : 11

37.

<input type="checkbox"/> There are 7 males to every 3 females at the company.
<input type="checkbox"/> There are 3 females to every 7 males at the company.
<input checked="" type="checkbox"/> There are 7 females to every 3 males at the company.
<input type="checkbox"/> For every 7 males at the company, there are 3 females.
<input type="checkbox"/> None of the above

38. $\frac{7}{8}$

39.

Time spent per flyer by Alonzo: 9 minutes

Time spent per flyer by Ivan: 6 minutes

Time spent per flyer by Michael: 8 minutes

Select the person who worked the fastest.

Alonzo

Ivan

Michael

40. 16

41.

$$\frac{1}{6} = \frac{2}{12}$$

$$42. \frac{5}{6} = \frac{30}{36}$$

$$43. \frac{3}{4}$$

$$44. \frac{1}{7}$$

45.

First, write the fractions with the same denominator.

$$\frac{5}{6} = \frac{15}{18} \quad \frac{8}{9} = \frac{16}{18}$$

Then, use $<$, $=$, or $>$ to compare the fractions.

$$\frac{5}{6} < \frac{8}{9}$$

46. $\frac{5}{2}$ kilograms

47. $\frac{5}{6}$

48. The reciprocal of 4 is $\frac{1}{4}$.

The reciprocal of $\frac{1}{7}$ is 7.

49. $\frac{15}{49}$

50. $\frac{125}{27}$

51. $4 \times 4 = 4^2$

52. 16