Name _____

UCS MATH 7 Semester 1 Exam---REVIEW #1

1 The highest temperature ever recorded in Florida was on June 29, 1931. The temperature that day was 109°F. What number represents the additive inverse of this record high temperature?

A -109

B 0

C $\frac{1}{109}$

D 218

2 Which two numbers have a combined distance of 22.6 from 0 on the number line?

A 12.8 and -9.2

B 18.4 and -3.2

C -18.2 and 4.1

D -11.4 and 11.2

3 This chart shows the temperatures taken at noon for five consecutive days.

If the difference between the temperature on Wednesday and the temperature on Thursday is $|17|$ degrees, what is Thursday's temperature?

Day	Temperature (˚F)
Monday	65°
Tuesday	70°
Wednesday	71°
Thursday	*n*
Friday	93°

A –17°

B 17°

C 77°

D 88°

4 In the first week of a fundraiser, Kyle sold 8 magazines. In the second week, he did not sell any magazines. Which property of real numbers is demonstrated by the equation 8 + 0 = 8 ?

A Associative property of addition

B Commutative property of addition

C Identity property of addition

D Distributive property

5 A ferry from town A to a nearby island runs 8 times each day. The maximum capacity of the ferry is 85 people. What is the maximum number of people the ferry can take from town A to the island each day?

A 85 people

B 170 people

C 680 people

D 850 people

6 Marlee recorded the temperature at 12:00 p.m. as 73°F. At 3:00 p.m. she recorded the temperature as 61°F. What is the change in temperature per hour?

A – 12°F

B –4°F

C 4°F

D 12°F

7 Jared's class measured the daily outside temperature throughout the school year. The lowest temperature that the students recorded was – 7°F, and the highest was 95°F. What is the difference between the highest and lowest temperatures?

A 88°F

B 89°F

C 98°F

D 102°F

8 Haru is using a scale to measure the mass of a rock. The scale reads 6.5 grams when Rock A is placed on it. When he puts Rock B on the scale, he notes that the scale reads 54.5 grams. What must Haru do to get the correct mass of the rock?

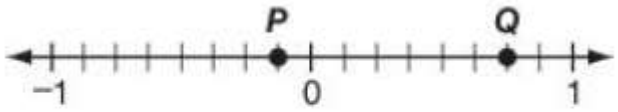
A add 6.5 to 54.5

B add 13.0 to 54.5

C Subtract 6.5 from 54.5

D Subtract 13.0 from 54.5

9 Look at the number line below.



Which results in 0?

A move *P* left $\frac{1}{4}$, move *Q* left $\frac{1}{2}$, then add *P and Q*

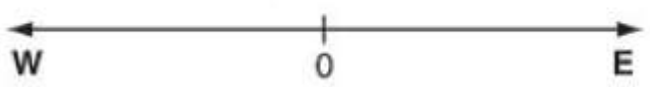
B move *P* right $\frac{1}{8}$, move *Q* left $\frac{5}{8}$, then add *P* and *Q*

C Move *P* left $\frac{7}{8}$, move *Q* right $\frac{1}{8}$, and then add *P* and *Q*

D Move P right $\frac{1}{4}$, move Q left $\frac{7}{8}$, and then add P and Q

10 Alicia and Kevin go to a park trail. They start together at the center of the trail, but Alicia goes $5\frac{1}{4}$ miles west on her bike while Kevin jogs $3\frac{1}{8}$ miles east. How far apart are they at noon?

Trail starts at 0



A $2\frac{1}{8}$ miles

B $8\frac{3}{8}$ miles

C $8\frac{1}{4}$ miles

D $\frac{1}{4}$ mile

11 Solve.

$5\frac{1}{2} - \left(-6\frac{1}{4}\right)$

A $-11\frac{3}{4}$

B $11\frac{3}{4}$

C $-\frac{3}{4}$

D $\frac{3}{4}$

12 Mr. Sanford asked his class to rewrite this expression using the **commutative** property of multiplication.

(2 x 3) x 7

Which of the following is correct?

A 7 x (2 x 3)

B (2 x 7) + (3 x 7)

C 2 x (3 x 7)

D (7 + 2) x (7 + 3)

13 When Cal and Ina arrived late for a pizza party, there was only $\frac{1}{2}$ of a pepperoni pizza and $\frac{1}{3}$ of a cheese pizza remaining. Together they $\frac{1}{2}$ ate of the remaining amounts of each pizza.

• Using the distributive property, write an expression to determine the fraction of both pizzas they ate.

• Simplify the expression to determine how much pizza they ate all together. Use words, numbers, and/or pictures to show your work. Write your answer(s) below.

SHORT ANSWER:

14 Ms. Kently wrote this table on the board.

X	Y
-4	1
4	-1
8	-2

Which solution correctly completes the table of solutions for $\frac{x}{y} = -4$?

A (-2,8)

B (-8,2)

C (0,-4)

D (-4,0)

15 A class has 30 cups of popcorn. They are filling individual bags with $\frac{3}{4}$ cups of popcorn. Write a number sentence to show how many bags they can fill with the popcorn.

SHORT ANSWER:

16 A goldfish was $4\frac{1}{4}$ inches long.
Which of the following is another way to express $4\frac{1}{4}$?

A $\frac{4}{17}$

B $\frac{9}{4}$

C 4.14

D 4.25

17 Alexis owns a hair salon. The profit she earns from each haircut is modeled by the expression below.

25x – 2(4x + 100)

Which of these shows the amount of profit in simplified form?

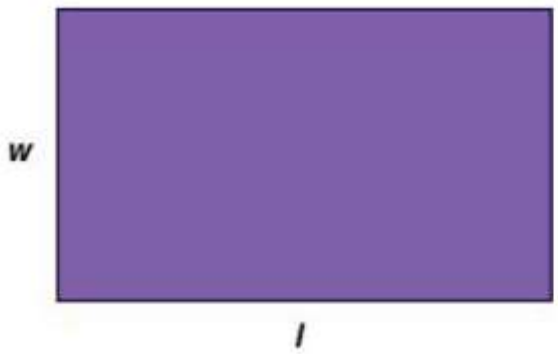
A 17x - 200

B 17x + 100

C 17x + 200

D 17x -100

18 The equation $l = 2w - 7$shows the relationship between the length, l, and the width, *w*, of this rectangle.



Which of the following statements correctly describes this relationship?

A Twice the width is 7 units less than the length.

B The length is 7 units less than the width.

C The length is 7 units less than twice the width.

D Twice the length is 7 units less than the width.

19 Leanne observed that the temperature was 84°F at 4:00 P.M., but a cold front caused it to drop to 78°F at 5:30 P.M. At this rate, what would be the temperature at 8:30 P.M.?

A 60°F

B 64°F

C 72°F

D 70°F

20 Evaluate the expression when x = 3 and y = -8 and $x^2 + 5y - 2$.

A –36

B –33

C 47

D 77

21 Which fraction is equivalent to $\frac{5}{6}$?

A $\frac{15}{24}$

B $\frac{25}{36}$

C $\frac{45}{54}$

D $\frac{55}{60}$

22 Pauline paid $3.85 for a long-distance phone call she made to her grandmother. Her phone company charged $0.20 to connect and $0.05 per minute. Solve the equation $0.05m + 0.20 = 3.85$ to find the number of minutes, m, that Pauline was on the phone with her grandmother.

A 73 minutes

B 77 minutes

C 81 minutes

D 97 minutes

23 Leslie budgeted no more than $25 for a newspaper ad. The ad costs $11 plus $2 per line ($l$). She uses this inequality to find how many lines the ad can contain:

$2l + 11 \leq 25$

What is the GREATEST number of lines Leslie can have in her ad?

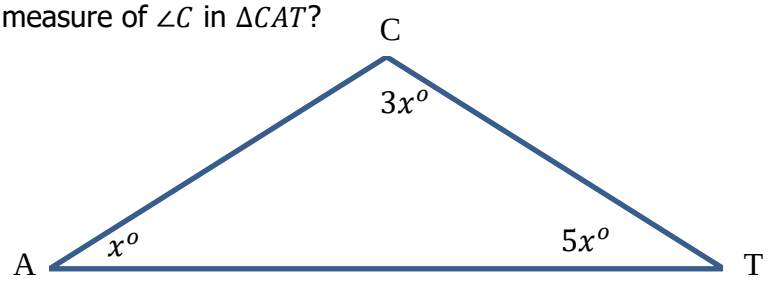
A 5

B 7

C 12

D 14

24 What is the measure of $\angle C$ in ΔCAT?



A 20°

B 60°

C 100°

D 180°

25 One side of a triangle has a measurement of 2cm. What could be the measurements of the other two sides?

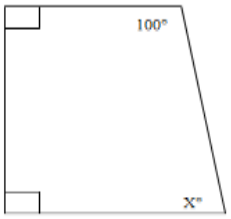
A 1 cm, 3 cm

B 1 cm, 4 cm

C 2 cm, 2 cm

D 2 cm, 5 cm

26 Michelle has a picture she wants to frame. The diagram at the right shows the outline of the frame. What is the value of x?



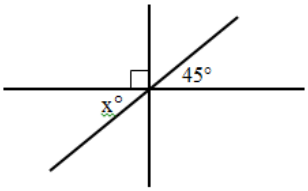
A 80°

B 90°

C 100°

D 280°

27 The intersection of three streets is shown in the figure below. If all of the three streets are straight, what is the value of x?



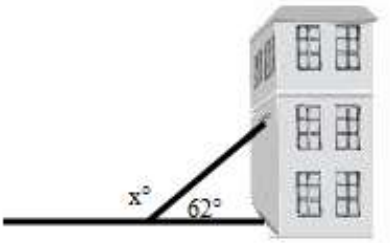
A 135°

B 45°

C 48°

D 52°

28 A ladder is leaning against a building forming a 62° angle with the ground as shown in the diagram. Find the measure of x.



A 28°

B 62°

C 118°

D 138°

29 Which of the following describes all adjacent angles?

A Adjacent angles have the same measure.

B Adjacent angles share a side.

C Adjacent angles always add up to 180°.

D Adjacent angles always add up to 90°

30 What is the relationship of complementary angles?

A They are equal.

B They add up to 90 degrees.

C They add up to 180 degrees.

D They add up to 360 degrees.

31 Which of the following pairs of angles are complementary?

A 43^o and 77^o

B 29^o and 151^o

C 37^o and 63^o

D 24^o and 66^o