Interim Assessment 2
Mathematics, Grade 7

Student: _____

Teacher: _____

School: _____

Mathematics
Assessment 2

DIRECTIONS

   In this assessment you will answer a total of 30 questions, including 4 constructed-response questions. Mark all of your answers to the questions on the answer sheet provided. You may use this test booklet to work out the questions, but remember to mark all of your answers on the answer sheet. For constructed-response questions, record your answers directly on the page in the test booklet.

You may not use a calculator on this assessment.

1. Compute.

$$\frac{5}{3} \div (-\frac{1}{2} \times \text{-}4)$$

   A. $-\frac{6}{5}$

   B. $-\frac{5}{6}$

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

   D. $\frac{40}{3}$

2. Which expression is equivalent to $(\text{-}15x + 21y) \div 3$?

   A. $2xy$

   B. $\text{-}5x + 7y$

   C. $\text{-}15x + 7y$

   D. $\text{-}5x + 21y$

3. Solve.

$$-3.6 \div \frac{1}{-5} = ?$$

   A. -24

   B. -18

   C. $15\frac{5}{6}$

   D. 18

4. Which expression is equivalent to -5(-2 + 4 + -8)?

   A. -5(-2) + (4 + -8)

   B. -5(-2 + 4) + -5(-8)

   C. -5(-2) × -5(4 + -8)

   D. (-1)(5)(-2) + 5(4 + -8)

5. What is the value of the expression?

$$-\frac{7}{8} + \frac{5}{6}$$

   A. $-1\frac{17}{24}$

   **B.** -1

   C. $-\frac{1}{24}$

   D. $\frac{1}{24}$

6. Which expression is equivalent to the expression below?

$$-3(x - 8) + 0.5x$$

   A. -3.5x + 24

   B. -3x + 24

   C. -2.5x - 8

   D. -2.5x + 24

7. Which situation would lead to a quotient that would be **best** represented as -188?

A. A debt of $752 is evenly split among 4 family members.

B. There are 752 cookies evenly split among 4 birthday parties.

C. There are 4 acres of land evenly split to grow 752 blueberry bushes.

D. A mountain's 4-millimeter erosion in height is evenly split over a 752-day period.

8. Cedric walks at a constant rate over a period of time. The number of calories that he burns from walking is proportional to the amount of time, in minutes, that he walks, as shown below.

Number of Calories Burned Over Time
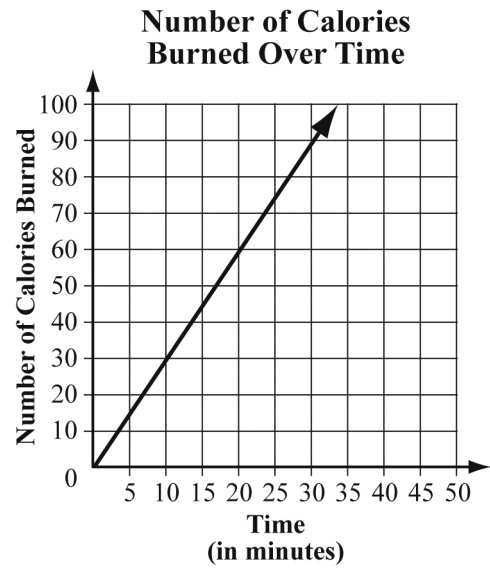
Based on the graph, which statement is true?

A. Cedric burns 0 calories from walking when he walks for 0 minutes.

B. Cedric burns 30 calories from walking when he walks for 1 minute.

C. Cedric burns 10 calories from walking when he walks for 5 minutes.

D. Cedric burns 10 calories from walking when he walks for 30 minutes.

9. Compute.

$\frac{3}{8} \div$ -0.25

A. $-1\frac{1}{2}$

B. $-\frac{2}{3}$

C. $\frac{2}{3}$

D. $1\frac{1}{2}$

10. Joel uses $1\frac{1}{5}$ liters of paint to cover $13\frac{4}{5}$ square meters of wall in his bathroom. How many square meters does he cover with 1 liter of paint?

A. $\frac{2}{23}$

B. $11\frac{1}{2}$

C. $13\frac{3}{5}$

D. $16\frac{14}{25}$

11. Which fraction is positive?

A. $-\frac{22}{7}$

B. $\frac{-22}{7}$

C. $\frac{22}{-7}$

D. $\frac{-22}{-7}$

12. Solve.

$-1.3 - 2\frac{5}{6} = ?$

A. $-4\frac{2}{15}$

B. $-4\frac{1}{6}$

C. $-3\frac{4}{15}$

D. $1\frac{8}{15}$

13. The table shows the price, d, in dollars, for x pounds of crawfish.

| Pounds of Crawfish (x)	Price, in dollars (d)
1	6
3	18
6	36
9	54

Which equation represents the relationship between pounds of crawfish and the price in dollars?

A. $x = d + 12$

B. $d = 3x$

C. $x = 6d$

D. $d = 6x$

14. Which fraction and decimal are equal?

A. $\frac{3}{10}$ and 0.33

B. $\frac{3}{8}$ and 0.375

C. $\frac{6}{5}$ and 0.65

D. $\frac{6}{4}$ and 6.4

15. The graph below shows the relationship between the number of boxes of oranges and the total weight of the boxes of oranges, in kilograms.

Weight of Boxes of Oranges
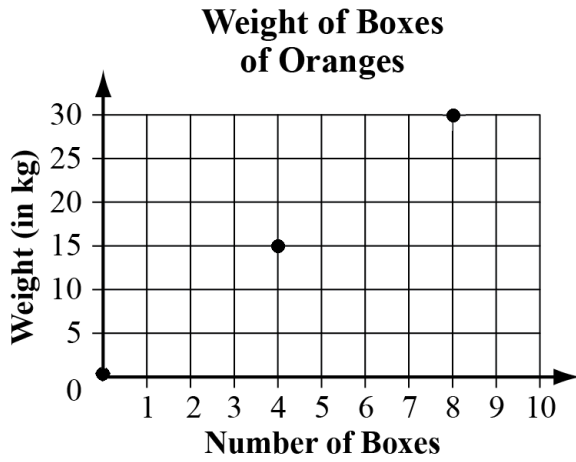
Which point on the graph represents the weight of one box of oranges?

A. (1, 4)

B. (1, 5)

C. (3.75, 1)

D. (1, 3.75)

16. Which expression is equivalent to the one below?

$$-6 \times \frac{-5}{8}$$

A. $\dfrac{-(6 \times 5)}{8}$

B. $\dfrac{-5}{-6} \times \dfrac{1}{8}$

C. $-5 \times \dfrac{-6}{-8}$

D. $-5 \times -6 \times \dfrac{1}{8}$

17. Tamie uses $\frac{2}{3}$ of a cup of water with $\frac{1}{6}$ of a pound of flour to make a paste for a sculpture she is creating.

How many cups of water does she need to mix with 1 pound of flour to create the same paste?

A. $\frac{1}{9}$

B. $\frac{1}{4}$

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

D. 4

18. Which decimal **best** represents $\frac{15}{33}$?

A. 0.4545

B. $0.\overline{45}$

C. 0.455

D. $0.4\overline{55}$

19. The lowest elevation in California is about 80 meters below sea level. The lowest elevation in Louisiana is also below sea level and is about $\frac{1}{4}$ the value of California's lowest elevation.

Which value **best** represents the lowest elevation, in meters, in Louisiana?

A. -320

B. -20

C. 20

D. 320

Multiple-Select Directions

For each multiple-select question that follows, there will be more than
one correct answer. Record your answers on the answer sheet provided.

20. Which expressions are equivalent to the
    one below?

    $m(n + p + 6)$

    Select **all** that apply.

    A. $mn + mp + 6m$

    B. $mn + p + 6$

    C. $mn + m(p + 6)$

    D. $m(n + p) + 6m$

    E. $m + (n + p + 6)$

21. Amy evaluated an expression in which
    her final answer was a positive product.

    Which expressions could be the
    expression Amy evaluated?

    Select **all** that apply.

    A. $\frac{1}{9} \times -\frac{3}{7}$

    B. $-\frac{3}{4} \times -1\frac{1}{8}$

    C. $-\frac{5}{12} \times \frac{1}{3} \times -\frac{4}{5}$

    D. $2\frac{1}{3} \times -\frac{1}{5} \times 1\frac{1}{2}$

    E. $-1\frac{2}{3} \times -\frac{4}{9} \times -\frac{1}{6}$

22. Which expressions are equivalent to the expression below?

$-\frac{1}{3} - (-4 + \frac{1}{6})$

Select **all** that apply.

A. $-\frac{1}{3} + 4 + \frac{1}{6}$

B. $(4 - \frac{1}{6}) - \frac{1}{3}$

C. $4 - (\frac{1}{3} - \frac{1}{6})$

D. $4 - (\frac{1}{3} + \frac{1}{6})$

E. $-(\frac{1}{3} + \frac{1}{6}) + 4$

23. Which expressions are equivalent to the one below?

$\frac{24}{-7} \div -3$

Select **all** that apply.

A. $\frac{24}{-7} \times \frac{-1}{3}$

B. $\frac{-24}{7} \times -3$

C. $\frac{24}{3} \times \frac{1}{7}$

D. $24 \div \frac{-3}{-7}$

E. $-(\frac{24}{7} \times \frac{1}{3})$

F. $-24 \div -3 \times \frac{1}{7}$

24. Which relationships can be represented by the equation $y = \frac{1}{5}x$?

Select **all** that apply.

A. Bananas are on sale for $0.20 per banana. Let x represent the number of bananas and y represent the total cost.

B. One water jug holds 5 quarts. Let x represent the number of water jugs and y represent the number of quarts.

C. The library charges a $5 fee for every 10 days a book is late. Let x represent the number of days late and y represent the fee.

D. David runs at a constant rate. He runs 15 miles in 3 hours. Let x represent the number of hours and y represent the number of miles.

E. Jasmine has 2 liters of juice. She divides the juice equally among 10 glasses. Let x represent the number of glasses and y represent the liters of juice.

Short-Answer Directions

For each short-answer question that follows,
write your answer on the answer sheet provided.

25. Scott has $54.13 in his checking account. He charges a purchase of $63.25 to his checking account.

What is Scott's new checking account balance? Write your answer as a signed number.

26. Write the fraction $\frac{4}{64}$ as decimal.

Constructed-Response Directions

For each constructed-response question that follows, write
your answer in the space provided in your test booklet.

27. The variable x represents a negative integer. Paul thinks that this means that the
fraction $\frac{x}{y}$ must be negative.

- Give an example that supports Paul's conclusion.
- Give an example that shows that Paul's conclusion is not correct.

Explain your answers.

28. Write two expressions that are equivalent to the one below.

$(5 + d) + (5 + d) + (5 + d)$

29. Use the fantasy football scoring guide below to answer the following questions.

Event	Points
Touchdown	3 points
Field Goal	1 point
Fumble	$-\frac{1}{2}$ point
Interception	-2 points

a. In a game that had 1 touchdown, 1 field goal, no fumbles, and had a total score of 0, how many interceptions were there? Explain your thinking, and justify your answer using the number line below.
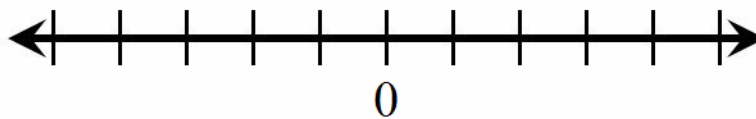
b. Two players scored their points as follows:

- Angie's team had 2 touchdowns, 3 fumbles, and 1 interception.
- Jerome's team had 1 touchdown, 2 fumbles, 1 field goal, and 4 interceptions.

Which player had the higher score, and by how many points? Justify your answer.

30. Olivia is starting a lemonade stand. She spends $3.17 to make 1 jug of lemonade. Each jug holds 9 glasses of lemonade. She sells each glass of lemonade for $0.35.

a. Olivia makes and sells 5 jugs of lemonade on her first day of selling lemonade. Write a signed number to represent her profit or loss at the end of the day. Show your work.

b. On the second day, Olivia changes the price of one glass of lemonade to $0.40. She makes and sells 126 glasses of lemonade on the second day. Write a signed number to represent her profit or loss at the end of the day. Show your work.