

TEST NAME: **EE Review 2**  
TEST ID: **340154**  
GRADE: **07**  
SUBJECT: **Mathematics**  
TEST CATEGORY: **School Assessment**

Student: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. Margo and Jeremy each have  $x$  baseball cards. They put some of their baseball cards in one album. Then, a friend gave them 8 more baseball cards to complete the album. Margo and Jeremy then filled two more albums with the same number of baseball cards as in the first album.

Which expression best represents the total number of baseball cards in all three albums?

- A.  $2(2x) + 8$
- B.  $3(2x) + 8$
- C.  $2(2x + 8)$
- D.  $3(2x + 8)$

2. Bart gave  $\frac{3}{4}$  of  $p$ , his penny collection, to his big brother. When Bart's dad asked how many pennies he had left, Bart multiplied the number of pennies he started with by  $\frac{3}{4}$  and subtracted that answer from the original number.

Which expression could he have used more easily to determine how many pennies he had left?

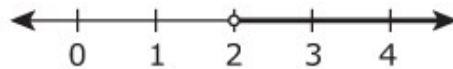
- A.  $\frac{1}{4}p$
- B.  $p + \frac{1}{4}p$
- C.  $1p - 75p$
- D.  $100p - 0.75p$

3. Andre makes \$8 an hour working at a store. After 6 months, he receives a 5% increase in his hourly pay. He also receives a \$2 bonus for each person who signs up on the mailing list. Andre has worked for 8 months. What is Andre's pay for one week if he works 36 hours and signs up 6 people on the mailing list that week?
- A. \$288.00  
B. \$300.00  
C. \$302.40  
D. \$314.40
4. A bicycle normally sells for \$475. The bicycle was discounted 30% for a sale. After the sale was over, the new price of the bicycle was 25% higher than the sale price. What was the new price of the bicycle?
- A. \$249.38  
B. \$332.50  
C. \$415.63  
D. \$451.25
5. Caesar went to a sandwich restaurant with 2 friends. They ordered 2 sandwiches for \$6.50 each and one garden salad for \$4.25. They also got 2 drinks for \$1.80 each. The tax was \$2.90. Caesar paid with in cash. How much change did he get back?
- A. \$6.25  
B. \$9.15  
C. \$14.55  
D. \$17.45
6. A girl read a book that had 1,159 pages. She read 72 pages on the first day. She then read 40 pages per day until she finished the book. Which equation can be used to find the number of days,  $d$ , it took her to read the book?
- A.  $72d + 40 = 1,159$   
B.  $72d - 40 = 1,159$   
C.  $40d + 72 = 1,159$   
D.  $40d - 72 = 1,159$

7. The original price of coffee beans,  $b$ , increased by 6% in July. Then in August, the July price was doubled. The new price can be represented as  $2.12b$ . Which expression can also be used to find the new price of coffee beans?
- A.  $2+.12b$
  - B.  $2b+0.6$
  - C.  $2(b+.12)$
  - D.  $2(b+.06b)$
8. The price of an mp3 player is reduced by 60%. The expression  $c - 0.6c$  represents the sale price. Which represents an equivalent expression to determine the sale price?
- A.  $0.4c$
  - B.  $0.6c$
  - C.  $0.4$
  - D.  $0.6$
9. Hugo wants to add to his savings over the next 8 weeks. His goal is to have more than \$200 by that time. Hugo currently has \$184. Which inequality can be used to determine the average number of dollars,  $d$ , Hugo needs to save each week?
- A.  $\frac{184 + d}{8} > 200$
  - B.  $184 + d > 200$
  - C.  $184 + \frac{d}{8} > 200$
  - D.  $184 + 8d > 200$

10. A website designer rents an office to start a new business. The monthly office rent is \$2,750. The designer charges \$115 per hour to work on websites. Which inequality finds the number of hours,  $h$ , that the designer must work to make at least \$3,250 per month after paying the office rent?
- A.  $\$3,250 > \$115h + \$2,750$
  - B.  $\$3,250 < \$115h + \$2,750$
  - C.  $\$3,250 > \$115h - \$2,750$
  - D.  $\$3,250 < \$115h - \$2,750$

11. The number line shows the solution to the inequality  $3x - 2 \square 4$ .



Based on the number line, which symbol should be placed in the box to complete the inequality?

- A.  $<$
  - B.  $>$
  - C.  $\leq$
  - D.  $\geq$
12. Which expression is equivalent to  $(6x+2)+(3x+7)$ ?
- A.  $18x+14$
  - B.  $8x+10$
  - C.  $9(x+9)$
  - D.  $9(x+1)$

13. Which term should be added to  $5y + 18y - (-2y) + (-10y)$  for a result of  $19y$ ?

- A.  $-16y$
- B.  $-14y$
- C.  $4y$
- D.  $8y$

14. Thomas planted four different vegetables in a garden.

- $\frac{1}{9}$  of the garden was planted with broccoli.
- $\frac{1}{6}$  of the garden was planted with carrots.
- $\frac{1}{4}$  of the garden was planted with lettuce.
- $\frac{1}{3}$  of the garden was planted with tomatoes.

What fraction of the entire garden did Thomas use to plant the four vegetables?

- A.  $\frac{5}{6}$
- B.  $\frac{8}{9}$
- C.  $\frac{31}{36}$
- D.  $\frac{43}{54}$

15. Two students will use different methods to calculate the height of a rectangle that has a length of 10 units and a perimeter of 60 units.

Student 1

$$60 = 2h + 2(10)$$

Student 2

$$(60 \div 2) - 10 = h$$

If the students only use whole numbers, which statement is true about the operations the students will use to solve each method?

- A. Student 1 will add then divide, and Student 2 will divide then subtract.
- B. Student 1 will divide then add, and Student 2 will subtract then divide.
- C. Student 1 will subtract then divide, and Student 2 will divide then subtract.
- D. Student 1 will divide then subtract, and Student 2 will subtract then divide.
16. Three art students used a total of  $28\frac{1}{2}$  inches of string for an art project.

Each student used  $2\frac{1}{2}$  inches of string plus an additional  $1\frac{3}{4}$  inches of string for each day they worked on the art project. Each student worked on the project the same number of days. Which equation could be used to find  $d$ , the number of days the students worked on the art project?

- A.  $28\frac{1}{2} = 3\left(2\frac{1}{2}d + 1\frac{3}{4}\right)$
- B.  $28\frac{1}{2} = 3\left(2\frac{1}{2} + 1\frac{3}{4}d\right)$
- C.  $28\frac{1}{2} = 3\left(2\frac{1}{2}d\right) + 1\frac{3}{4}$
- D.  $28\frac{1}{2} = 3\left(2\frac{1}{2}\right) + 1\frac{3}{4}d$

17. Brian made 5 free throws at basketball practice. Ethan scored 3 more than twice the number of free throws Brian made. Which equation represents the number of free throws,  $t$ , Ethan made?

A.  $t = (5 + 2) + 3$

B.  $t = (3 \times 2) \times 5$

C.  $t = (2 \times 5) + 3$

D.  $t = (5 \times 3) + 2$

18. Four students wrote expressions using the variable  $t$  below. If  $t$  represents a positive integer, whose expression has the greatest value?

Student	Expression
Angelo	$-5(12t + 9)$
Brian	$2(6t - 8)$
Chrissy	$-6(-2t + 18)$
Devon	$-4(-3t - 2)$

A. Angelo

B. Brian

C. Chrissy

D. Devon

19. What is the value of  $x$  in the equation below?

$$-12 - (-4) = x - 15$$

A. 31

B. 7

C. -7

D. -31



20. A repairman charges \$55 for a home visit plus \$45 per hour for the time he spends making repairs. How many hours did he work if he was paid \$212.50 for a home visit? Round **to the nearest tenth**.
- A. 2.1 hours
  - B. 3.0 hours
  - C. 3.5 hours
  - D. 5.9 hours
21. Which answer shows the factored form of  $-8wx + 2wz - 6w$ ?
- A.  $-12(w + x + z)$
  - B.  $2w(4x - z + 3)$
  - C.  $-8w(x + 2z - 6)$
  - D.  $-2w(4x - z + 3)$
22. Kevin's savings account had  $x$  dollars in it at the beginning of the month. At the end of the month, there was 4% more money in Kevin's account. Which expression represents the number of dollars in Kevin's account at the end of the month?
- A.  $0.04x$
  - B.  $1.04x$
  - C.  $x + 0.04$
  - D.  $x + 1.04$
23. Which of these shows  $\frac{-2(18x - 6y)}{-4}$  simplified?
- A.  $(9x - 3y)$
  - B.  $(-9x + 3y)$
  - C.  $(16x - 8y)$
  - D.  $(36x - 12y)$

24. Expand the expression below.

$$6y\left(\frac{2}{3}x + 6k - \frac{1}{2}\right)$$

A.  $4xy + 6k - \frac{1}{2}$

B.  $4x + 36k - 3$

C.  $4xy + 36ky - 3y$

D.  $4xy + 36ky + 3y$

25. Benito earns \$250 per week giving surfing lessons plus \$75 for each surfboard he sells. If Benito wants to earn **at least** \$500 this week, which inequality could be solved to find  $x$ , the number of surfboards he needs to sell?

A.  $250 + 75x \geq 500$

B.  $250 + 75x \leq 500$

C.  $250x + 75 \leq 500$

D.  $250x + 75 \geq 500$

26. Regina charges  $c$  dollars per hour to babysit. If she increases her rate by 15%, which expression represents her new rate, in dollars per hour?

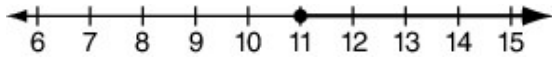


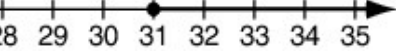
A.  $c + 0.15$

B.  $c + 15$

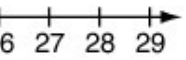
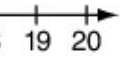

C.  $c + 0.15c$

D.  $c + 15c$

27. Ohio Skate charges a flat fee of \$60 for skating parties plus \$6 per person. Matteo can spend no more than \$126 on his skating party. Which number line represents the number of people Matteo can invite to his skating party without exceeding his spending limit?

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

28. The amount Max earned last week can be modeled by the expression  $25 + 5i \geq 95$ , where  $i$  is the number of items he sold. Which number line shows how many items he could have sold last week?

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

29. Robert’s mom gave him \$9 to buy groceries. She told him to buy a loaf of bread and as many quarts of milk as he could with the money she gave him. A loaf of bread costs \$2.20 and a quart of milk costs \$1.20. If  $x$  represents the number of quarts of milk Robert buys, which inequality represents this situation?

- A.  $1.2 + 2.2x < 9$
- B.  $1.2 + 2.2x \leq 9$
- C.  $1.2x + 2.2 < 9$
- D.  $1.2x + 2.2 \leq 9$

30. The sum of four consecutive integers is 34. What is the smallest of the four integers?

A. 6

B. 7

C. 8

D. 9