

Student:  
Class:  
Date:

15. What does  $8 + 16 \div 4 + 12$  equal?

- A. 9
- B. 12
- C. 18
- D. 24

TEST NAME: Williams MS 7 EE1 Study Guide  
TEST ID: 2151331  
GRADE: 07 - Seventh Grade  
SUBJECT: Mathematics  
TEST CATEGORY: School Assessment

19. Which number is the solution to the following equation?

$$-\frac{1}{2}n + 6 = -10$$

- A.  $-\frac{31}{3}$
- B. -8
- C.  $\frac{10}{3}$
- D. 32

20. If  $12y + 3 = 75$ , what is the value of  $y$ ?

- A. 3
- B. 4
- C. 5
- D. 6

4. Pairs of expressions are given. Select the pairs that are equivalent.

Pick up to 5 answers.

- A.  $\frac{1}{2}(5x - 9)$  and  $\frac{5}{2}x - \frac{9}{2}$
- B.  $-4[3(x - 7)]$  and  $6(14 - 2x)$
- C.  $-4(6n - 14)$  and  $8(-3n + 7)$
- D.  $-0.1(7x - 2)$  and  $-0.7x + 0.2$
- E.  $3[-7x + 44]$  and  $3[2(x + 4) - 9(x - 4)]$

3. Which equation is equivalent to  $-(6-x)=24$ ?
- $-6-x=24$
  - $-6+x=24$
  - $-6+x=-24$
  - $-6-x=-24$
6. A company produced  $n$  ovens in April. In May, the number of ovens the company produced decreased by 7%. Which expression represents the number of ovens the company produced in May?
- $0.07n$
  - $0.3n$
  - $0.93n$
  - $1.07n$
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?
- $2+.12b$
  - $2b+0.6$
  - $2(b+.12)$
  - $2(b+.06b)$
8. 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?
- $0.04x$
  - $1.04x$
  - $x+0.04$
  - $x+1.04$

9. Preston's salary before taxes are taken out is  $p$  dollars. After taxes are taken out, Preston's take home salary is  $t$  dollars. If  $p = 1.25t$ , what is Preston's take home salary in terms of his salary before taxes?
- $t = 0.75p$
  - $t = 0.8p$
  - $t = \frac{1.25}{p}$
  - $t = 1.25 - p$
10. Timmy's T-Shirts is having a huge back-to-school sale. All the T-shirts in the store are currently discounted by 15%. Let  $t$  represent the regular price of any T-shirt in the store. This discount can be represented by the expression  $t - 0.15t$ . Which expression can also be used to find the sales price of a T-shirt?
- $-0.15t$
  - $0.85t$
  - $1.15t$
  - $1.85t$

11. Mr. Hayes owns 22 shares of an energy stock. The purchase price for each share was \$17.35. The current value of each share of stock is \$23.50. What is the difference between the current value and the original purchase price for all 22 shares?
- \$135.30
  - \$381.70
  - \$517.00
  - \$898.70

12. The regular price of a skateboard is \$60.00. The skateboard is on sale for 30% off. The final cost will include 8% sales tax. Alex wrote the expression below for the final cost in dollars of the skateboard.

$$60 \times 0.3 + 60 \times 0.7 \times 0.08$$

Which statement BEST evaluates Alex's expression?

- A. It is correct.  
 B. It represents the discount correctly but not the sales tax.  
 C. It represents the sales tax correctly but not the discount.  
 D. It represents both the discount and the sales tax incorrectly.
13. The produce display at a grocery store indicated that apples were 3 for \$1.00 and oranges were 5 for \$3.00, but at the cash register both fruits were priced at 50 cents each. If Tammy bought a dozen apples and 8 oranges, which statement about the total amount Tammy was charged is TRUE?
- A. Tammy was charged the correct amount.  
 B. Tammy was overcharged \$1.20.  
 C. Tammy was overcharged \$2.00.  
 D. Tammy was undercharged \$0.80.

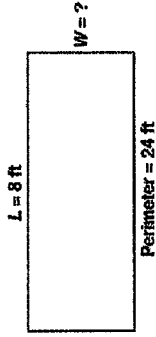
14. Ms. Mois has budgeted \$7,500 for a computer lab in her school. If she buys 7 new computers that cost \$750 each, how much money will she have left?

- A. \$1,750  
 B. \$2,250  
 C. \$5,250  
 D. \$6,750

1. Which expression is NOT equivalent to  $4 \times \frac{3}{8}$ ?

- A.  $4 \times \left(3 \times \frac{1}{8}\right)$   
 B.  $(4 \times 3) \times \frac{1}{8}$   
 C.  $\left(4 \times \frac{1}{8}\right) \times 3$   
 D.  $(4 \times 3) \times \left(4 \times \frac{1}{8}\right)$

16. The formula for the perimeter of a rectangle is  $P = 2L + 2W$ . The perimeter of the rectangle below is 24 ft.



What is the width of the rectangle?

- A. 3 ft  
 B. 4 ft  
 C. 6 ft  
 D. 8 ft
17. A music store is offering guitar lessons for \$65 per month. A guitar book costs \$39. How many months of lessons could a student take if he had \$599 to spend on the lessons and book?
- A. 5  
 B. 8  
 C. 9  
 D. 12

18. In Major League Baseball history, Babe Ruth hit 29 more than 5 times the number of career home runs than Jackie Robinson. Babe Ruth hit 714 career home runs. Which equation can be used to find  $h$ , the number of career home runs Jackie Robinson hit?

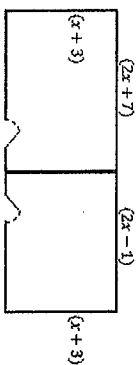
- A.  $5h - 29 = 714$   
 B.  $5h + 29 = 714$   
 C.  $h - 29 = 714$   
 D.  $h + 29 = 714$

2. Select all of the equations that are true.

Pick up to 3 answers.

- A.  $9x - (16x + 2) = (-4x - 2) - 3x$
- B.  $(9x + 4) - (6 - 3x) = 12x - 2$
- C.  $\left(5n - \frac{5}{6}\right) - \left(2n - \frac{2}{3}\right) = \left(\frac{1}{6} + 6n\right) - \left(\frac{1}{3} + 3n\right)$
- D.  $(-8.1m - 2) - (-2.4m - 3) = -10.5m - 5$
- E.  $(7 - 3d) - (4 - 5d) - (6 + 2d) = -3 - 3d - 5d$

5. Kerry wants to remodel his house by knocking down a wall between two adjoining, rectangular rooms. On the blueprints, the width of both rooms is defined by the expression  $(x + 3)$ .



If the length of the first room is  $(2x + 7)$  and the length of the second room is  $(2x - 1)$ , which expression models the area of the new room once the wall is knocked down?

- A.  $6x + 12$
- B.  $4x^2 + 18$
- C.  $4x^2 + 13x - 4$
- D.  $4x^2 + 18x + 18$