ARE YOU READY?

Pre-Course Test

Whole Number Operations

Add, subtract, multiply, or divide.

1. $623 - 432$
2. 8×23
3. $882 \div 14$
4. $178 + 842$

Add and Subtract Decimals

Add or subtract.

5. $43.21 + 16.8$
6. $16.3 - 9.11$

Multiply Decimals

Multiply.

7. 2.3×0.6
8. 6.4×3.2

Divide Decimals

Divide.

9. $25.6 \div 8$
10. $0.84 \div 0.6$

Multiply and Divide Fractions

Multiply or divide. Give your answer in simplest form.

11. $\frac{2}{9} \times \frac{3}{4}$
12. $\frac{5}{9} \div 5$

Add and Subtract Fractions

Add or subtract. Give your answer in simplest form.

13. $\frac{3}{4} + \frac{5}{12}$
14. $1\frac{2}{9} - \frac{4}{9}$

Add and Subtract Integers

Add or subtract.

15. $-54 + 35$
16. $-18 - (-30)$

Multiply and Divide Integers

Multiply or divide.

17. $15(-4)$
18. $-30 \div (-6)$

Fractions, Decimals, and Percents

Write the equivalent decimal and the equivalent percent.

19. $\frac{4}{25}$
20. $\frac{9}{8}$

Order of Operations

Evaluate each expression.

21. $12 + 3 \div 3$
22. $3 + 2 \times 4^2$
23. $4 + 6 \times 10 - 2$
24. $25 \times (4 + 5)$

Distributive Property

Simplify each expression.

25. $5(12 + g)$
26. $(r - 6)9$

Rates and Unit Rates

Find each unit rate.

27. \$30 for 8 students
28. 96 packages in 6 days

Connect Words and Algebra

29. Mario has saved \$165. At the end of each week he saves an additional \$15. Write an equation representing the total amount S he has saved at the end of any given week w.

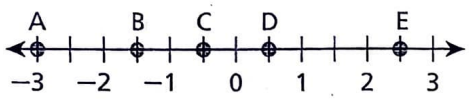
Graph Numbers on a Number Line

Identify the point on the number line that matches each number.

30. -0.5

31. 2.5

32. -3



Compare and Order Real Numbers

Compare. Write <, >, or =.

33. $\frac{5}{12} \square \frac{3}{4}$ **34.** $\frac{4}{20} \square 20\%$

Evaluate Expressions

Evaluate each expression for the given value of the variable.

35. $5w - 16$ for $w = 6$

36. $-8 - \frac{2}{3}h$ for $h = 6$

Solve One-Step Equations

Solve each equation.

37. $5g = 135$ **38.** $x - 16 = 8$

Combine Like Terms

Simply each expression by combining like terms.

39. $3b - 32 + 4b$

40. $-3f + 4t - 3t + 6f$

Solve Multi-Step Equations

Solve each equation.

41. $4x + 16 = 40$ **42.** $\frac{x}{5} - 9 = 1$

Solve Proportions

Solve each proportion.

43. $\frac{3}{4} = \frac{z}{12}$ **44.** $\frac{10}{30} = \frac{6}{t}$

Function Tables

45. Generate ordered pairs for the function for $x = -2, -1, 0, 1, 2$.

$y = 5x + 3$

x	y
-2	
-1	
0	
1	
2	

Ordered Pairs

Graph each point on the same coordinate grid.

46. $A(-3, -4)$ **47.** $B(2, 0)$

Graph Linear Functions

48. Graph the function $y = 2x + 1$.

Solve and Graph Inequalities

Solve and graph each inequality.

49. $b - 8 \geq -11$ **50.** $-\frac{3}{4}x > 3$

ARE YOU READY?

Vocabulary

Match each term on the left with a definition on the right.

1. constant
2. expression
3. order of operations
4. variable

A. a mathematical phrase that contains operations, numbers, and/or variables

B. a mathematical statement that two expressions are equivalent

C. a process for evaluating expressions

D. a symbol used to represent a quantity that can change

E. a value that does not change

Order of Operations

Simplify each expression.

5. $(7 - 3) \div 2$
6. $4 \cdot 6 \div 3$
7. $12 - 3 + 1$
8. $2 \cdot 10 \div 5$
9. $125 \div 5^2$
10. $7 \cdot 6 + 5 \cdot 4$

Add and Subtract Integers

Add or subtract.

11. $-15 + 19$
12. $-6 - (-18)$
13. $6 + (-8)$
14. $-12 + (-3)$

Add and Subtract Fractions

Perform each indicated operation. Give your answer in the simplest form.

15. $\frac{1}{4} + \frac{2}{3}$
16. $1\frac{1}{2} - \frac{3}{4}$
17. $\frac{3}{8} + \frac{2}{3}$
18. $\frac{3}{2} - \frac{2}{3}$

Evaluate Expressions

Evaluate each expression for the given value of the variable.

19. $2x + 3$ for $x = 7$
20. $3n - 5$ for $n = 7$
21. $13 - 4a$ for $a = 2$
22. $3y + 5$ for $y = 5$

Connect Words and Algebra

23. Janie bought 4 apples and 6 bananas. Each apple cost \$0.75, and each banana cost \$0.60. Write an expression representing the total cost.
24. A rectangle has a width of 13 inches and a length of ℓ inches. Write an expression representing the area of the rectangle.
25. Write a phrase that could be modeled by the expression $n + 2n$.