

Basic Math Skills Evaluation 2010 (for Algebra 1)

- _____ 1. Evaluate $u + xy$, for $u = 6$, $x = 2$, and $y = 7$.
A. 15 B. 20 C. 56 D. 19

Evaluate.

- _____ 2. $3x^2 - 4$ for $x = -3$
A. 15 B. 23 C. 77 D. -31

Simplify the expression.

- _____ 3. $10 + 20 \div 5$
A. 14 B. 110 C. -2 D. 6

- _____ 4. $-9 + 6$
A. -15 B. -3 C. 15 D. 3

- _____ 5. $-7 - (-3)$
A. 10 B. 4 C. -10 D. -4

- _____ 6. $(-2)^5$
A. 32 B. -10 C. 16 D. -32

- _____ 7. $(-9)(9)$
A. -81 B. -18 C. 18 D. 81

- _____ 8. $\frac{n^{14}}{n^9}$
A. n^{23} B. n^{126} C. n^5 D. $\frac{1}{n^5}$

- _____ 9. $-12 \div (-2)$
A. -24 B. 24 C. -6 D. 6

Simplify the expression.

- _____ 10. $7d + 12 - 4d - 3$
A. $19d - 7$ B. $12d$ C. $3d^2 + 9$ D. $3d + 9$

- _____ 11. $-7c^6 \cdot 3c^2$
A. $-21c^8$ B. $-4c^{12}$ C. $-21c^{12}$ D. $-4c^8$

Name: _____

ID: A

Use the Distributive Property to multiply.

- _____ 12. $5(2t - 5)$
A. $10t - 5$ B. $10t - 25$ C. $-15t$ D. $7t - 25$

Solve each equation, showing your work, and circle your answer.

13. $-7b = 21$

14. $2x - 26 = 10$

Solve each equation, showing your work, and circle your answer.

15. $16 = -d + 9$

16. $4(y - 2) = 16$

17. $5x - 5 = 3x - 9$

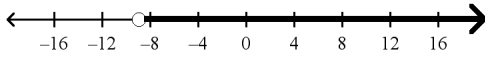
Solve the proportion.

18. $\frac{2}{10} = \frac{11}{x}$

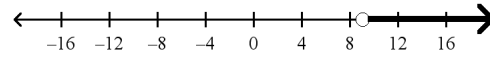
Solve the inequality. Then graph your solution.

_____ 19. $c - 3 > 6$

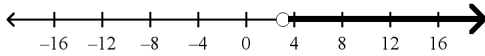
A. $c > -9$



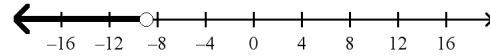
C. $c > 9$



B. $c > 3$

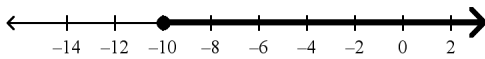


D. $c < -9$

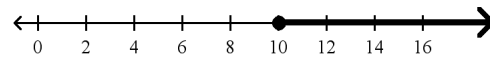


_____ 20. $\frac{x}{4} \geq -6$

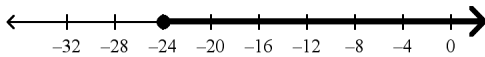
A. $x \geq -10$



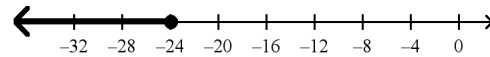
C. $x \geq 10$



B. $x \geq -24$

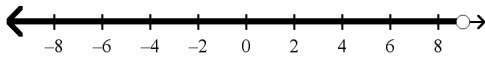


D. $x \leq -24$

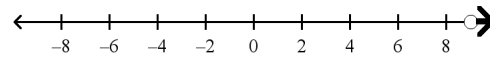


_____ 21. $-2w < -18$

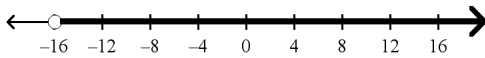
A. $w < 9$



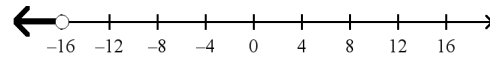
C. $w > 9$



B. $w > -16$

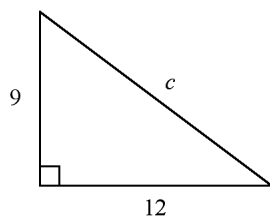


D. $w < -16$



Find the length of the missing side.

_____ 22.



A. 25

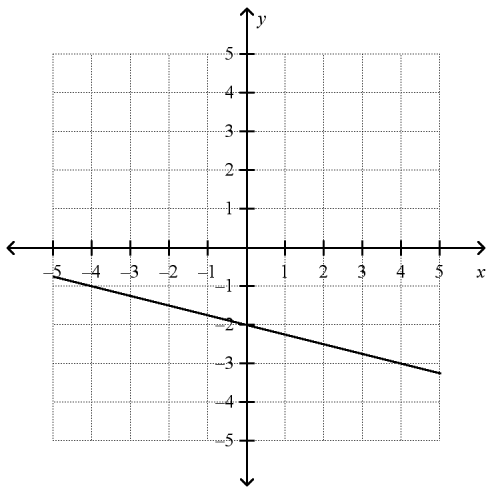
B. $\sqrt{5}$

C. 7

D. 5

Find the slope of the line.

_____ 23.



- A. 4 B. $-\frac{1}{4}$ C. $\frac{1}{4}$ D. -4

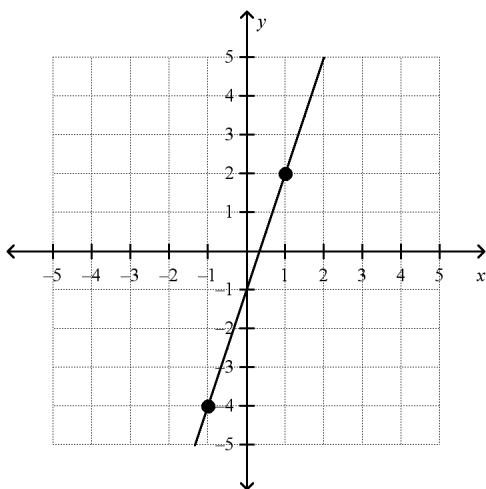
Find the slope and y-intercept of the line.

_____ 24. $y = \frac{4}{3}x - 3$

- A. $\frac{4}{3}; -3$ B. $\frac{3}{4}; 3$ C. $3; \frac{4}{3}$ D. $-3; \frac{4}{3}$

Write the slope-intercept form of the equation for the line.

_____ 25.



- A. $y = \frac{1}{3}x + 1$ C. $y = -3x - 1$
 B. $y = 3x - 1$ D. $y = \frac{1}{3}x - 1$

Basic Math Skills Evaluation 2010 (for Algebra 1)**Answer Section**

1. ANS: B REF: 1-2 Exponents and Order of Operations
2. ANS: B REF: 4-2 Exponents
3. ANS: A REF: 1-2 The Order of Operations
4. ANS: B REF: 2-1 Adding Rational Numbers
5. ANS: D REF: 2-1 Adding Rational Numbers
6. ANS: D REF: 2-3 Multiplying and Dividing Rational Numbers
7. ANS: A REF: 2-3 Multiplying and Dividing Rational Numbers
8. ANS: C REF: 8-5 Division Properties of Exponents
9. ANS: D REF: 2-3 Multiplying and Dividing Rational Numbers
10. ANS: D REF: 2-3 Simplifying Variable Expressions
11. ANS: A REF: 4-7 Exponents and Multiplication
12. ANS: B REF: 2-2 The Distributive Property
13. ANS:
-3
- REF: 2-6 Solving Equations by Multiplying or Dividing
14. ANS:
18
- REF: 7-1 Solving Two-Step Equations
15. ANS:
-7
- REF: 3-1 Solving Two-Step Equations
16. ANS:
6
- REF: 3-2 Solving Multi-Step Equations
17. ANS:
-2
- REF: 3-3 Equations With Variables on Both Sides
18. ANS:
55
- REF: 3-4 Ratio and Proportion
19. ANS: C REF: 4-2 Solving Inequalities Using Addition and Subtraction
20. ANS: B REF: 4-3 Solving Inequalities Using Multiplication and Division
21. ANS: C REF: 4-3 Solving Inequalities Using Multiplication and Division
22. ANS: D REF: 3-9 The Pythagorean Theorem
23. ANS: B REF: 6-1 Rate of Change and Slope
24. ANS: A REF: 6-2 Slope-Intercept Form
25. ANS: B REF: 6-2 Slope-Intercept Form