
**MAT 0024C, COLLEGE PREP ALGEBRA
PRACTICE EXIT EXAM**

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1. Simplify: $8 - 4 \div 2 - 10 \div 2$
A. -4 B. 1 C. -3 D. 4

2. Simplify: $12 - (-3)^2 \div (7 - 4)$
A. 1 B. 7 C. 9 D. 15

3. Simplify: $|-8| - |-5|$
A. -13 B. -3 C. 3 D. 13

4. Simplify: $-2[x + 9(x + 1)]$
A. $20x + 18$ B. $20x + 2$ C. $-20x - 2$ D. $-20x - 18$

5. Evaluate the given expression when $w = -2$: $3w^2 + 5w - 8$
A. 14 B. -6 C. -11 D. -30

6. Solve for x : $2(3x + 5) = 5x - 11$
A. $x = -21$ B. $x = -16$ C. $x = -\frac{21}{11}$ D. $x = -1$

7. Solve for x : $\frac{1}{2}x + 6 = 3 + 2x$
A. $x = 3$ B. $x = 2$ C. $x = 0$ D. $x = -3$

8. Solve for x : $5w + 4x = 7k$
A. $x = \frac{7k + 5w}{4}$ B. $x = 3kw$ C. $x = \frac{7k - 5w}{4}$ D. $x = 7k - 5w$

17. Simplify: $(3x^2 + 2x - 6) - (x^2 - x + 2)$
 A. $2x^4 + 3x^2 - 8$ B. $2x^2 + x - 4$ C. $2x^2 + 3x - 4$ D. $2x^2 + 3x - 8$
18. Simplify: $4x^3(2x^2 - 7)$
 A. $8x^5 - 28x^3$ B. $8x^6 - 7$ C. $6x^5 - 28x^3$ D. $8x^6 - 28x^3$
19. Simplify: $(5x - 9)(x + 6)$
 A. $5x^2 + 39x - 54$ B. $5x^2 + 21x - 3$ C. $5x^2 - 3x - 15$ D. $5x^2 + 21x - 54$
20. Factor completely: $12a^2b^2 - 3ab$
 A. $3ab(4ab)$ B. $3ab(4ab - 1)$ C. $3ab(4a^2b^2 - ab)$ D. $ab(12ab - 3)$
21. Factor completely: $4x^2 - 9$
 A. $(2x^2 + 3)(2x^2 - 3)$ C. $(2x + 1)(2x - 9)$
 B. $(2x + 3)(2x - 3)$ D. $(2x - 3)(2x - 3)$
22. Factor completely: $ax - a + bx - b$
 A. $(x + 1)(a + b)$ C. $(x - 1)(a + b)$
 B. $(x + 1)(a - b)$ D. $(x - 1)(a - b)$
23. Identify a factor of the following trinomial: $5x^2 - 9x - 2$
 A. $(5x + 2)$ B. $(5x + 1)$ C. $(x + 2)$ D. $(x + 1)$
24. Simplify: $\frac{x^2 - 4x + 3}{1 - x}$
 A. $-x + 3$ B. $-x + 1$ C. $x - 3$ D. $x + 3$
25. Solve: $x^2 - 5x + 6 = 0$
 A. $x = 2, x = 3$ C. $x = 1, x = 6$
 B. $x = -2, x = -3$ D. $x = -1, x = 6$

26. Solve: $3a^2 + 14a + 8 = 0$

A. $a = -\frac{2}{3}, a = -4$

C. $a = -\frac{3}{2}, a = -4$

B. $a = \frac{2}{3}, a = 4$

D. $a = -\frac{4}{3}, a = -2$

27. Assuming the variable represents a non-negative number, simplify completely: $\sqrt{18x^3}$

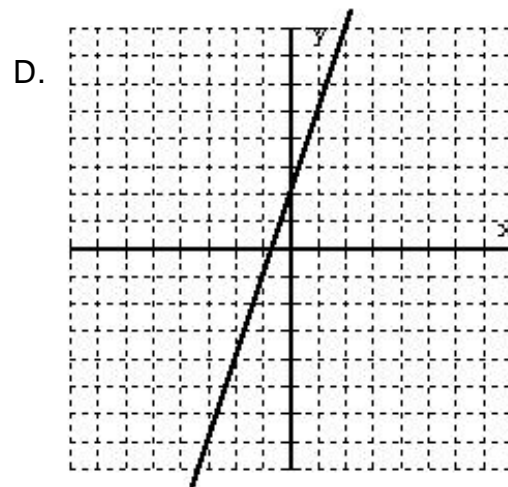
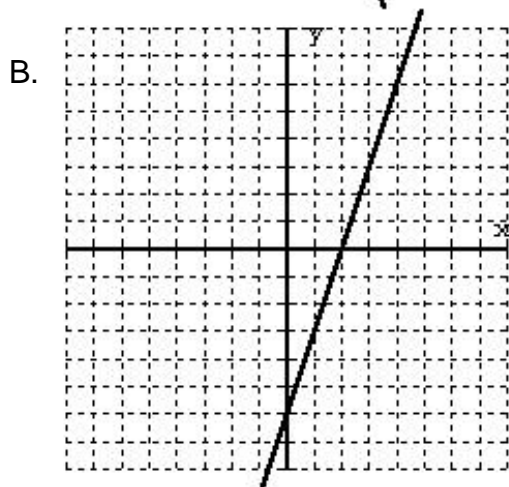
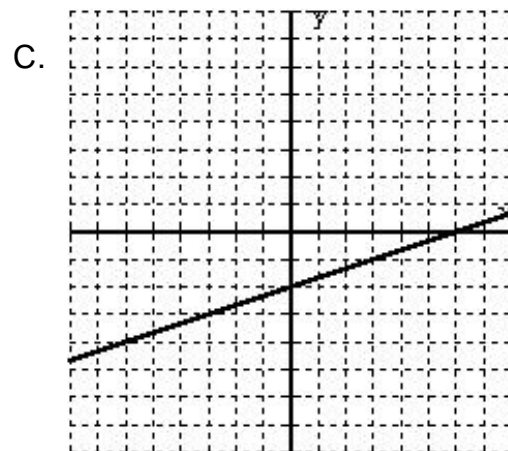
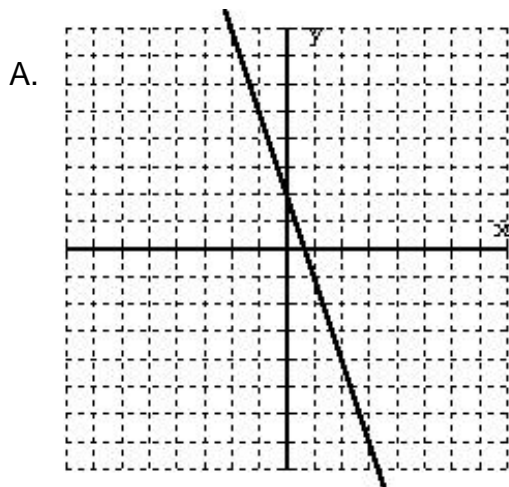
A. $3x\sqrt{2x}$

B. $6x\sqrt{3x^2}$

C. $9x\sqrt{2x}$

D. $3\sqrt{6x^3}$

28. Find the graph that best matches the given linear equation: $y = 3x + 2$



29. Simplify: $\sqrt{3}(\sqrt{3} + \sqrt{6})$

A. $6\sqrt{2}$

B. 9

C. $3 + 3\sqrt{2}$

D. 21

30. Find the x-intercept for: $2x - 3y = 6$

A. (0, 3)

B. (0, -2)

C. (3, 0)

D. (3, 2)