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**MAT 0024**  
**PRACTICE EXIT EXAM - Condensed Space Version**

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Problems on this practice exit exam came from the Florida College Basic Skills Exit Test, Item Specifications for Mathematics, State of Florida, Department of State, Copyright, 1999.

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:  $\sqrt{18x^3}$

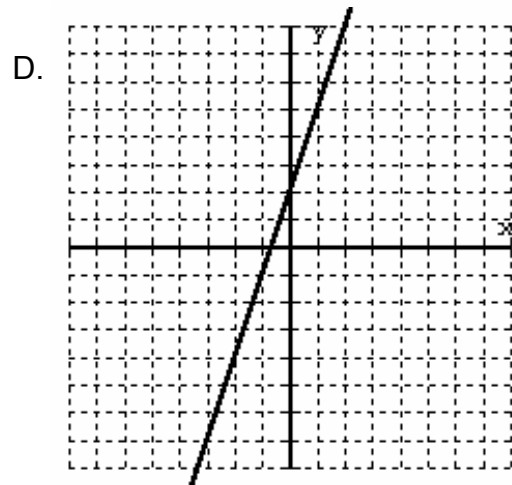
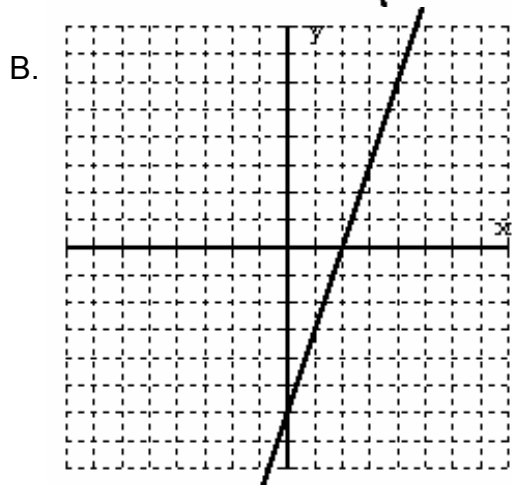
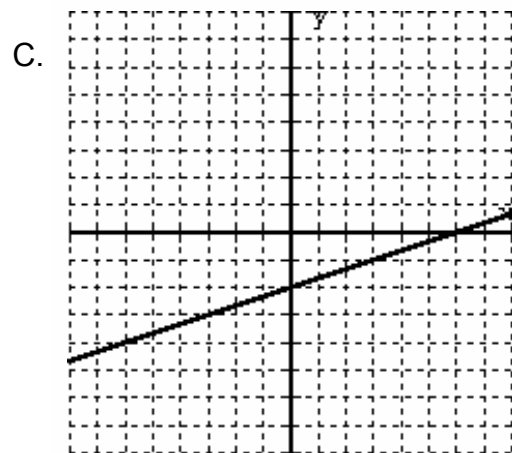
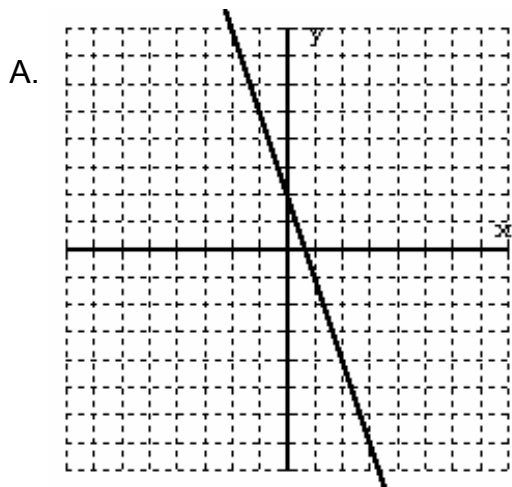
A.  $3x\sqrt{2x}$

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)

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**MAT 0024  
PRACTICE EXIT EXAM - KEY**

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1) Answer: B

2) Answer: C

3) Answer: C

4) Answer: D

5) Answer: B

6) Answer: A

7) Answer: B

8) Answer: C

9) Answer: D

10) Answer: C

11) Answer: B

12) Answer: B

13) Answer: C

14) Answer: A

15) Answer: D

16) Answer: B

17) Answer: D

18) Answer: A

19) Answer: D

20) Answer: B

21) Answer: B

22) Answer: C

23) Answer: B

24) Answer: A

25) Answer: A

26) Answer: A

27) Answer: A

28) Answer: D

29) Answer: C

30) Answer: C