

- In the completely factored form of  $8x^2 - 24x$ , one of the factors is:  
A.  $x - 16$                       B.  $x - 27$                       C.  $x - 3$                       D.  $2x - 6$
- In the completely factored form of  $12x^2 - 17x - 5$ , one of the factors is:  
A.  $3x + 5$                       B.  $3x - 5$                       C.  $4x - 5$                       D.  $6x - 5$
- In the completely factored form of  $64m^2 - 25n^2$ , one of the factors is:  
A.  $4m - 5$                       B.  $4m + 5n$                       C.  $8m + 5$                       D.  $8m + 5n$
- In the completely factored form of  $6w^2 + 5w - 4$ , one of the factors is:  
A.  $6w - 1$                       B.  $3w - 1$                       C.  $3w + 4$                       D.  $3w - 4$
- The completely factored form of  $2ab^2 + a - 8b^2 - 4$   
A.  $(a - 4)(2b^2 + 1)$     B.  $(a + 4)(2b^2 - 1)$     C.  $(a - 1)(2b^2 + 4)$     D. cannot be factored
- The completely factored form of  $36x^2 - 4y^2$   
A.  $(6x + 2y)(6x - 2y)$     B.  $4(3x + y)(3x - y)$     C.  $(3x + y)(3x - y)$     D. cannot be factored
- Find  $f(-2)$  when  $f(x) = 3x^2 + 4x - 9$   
A. 11                      B. -13                      C. -5                      D. -29
- Find  $f(3.5)$  when  $f(x) = -x^2 + 8x$   
A. 40.25                      B. 24.5                      C. -4.25                      D. 15.75
- Find  $g(z + h)$  when  $f(x) = -3x + 1$   
A.  $-3z - 3h + 1$     B.  $-3z + 3h + 1$     C.  $-3z + h + 1$     D.  $(-3x + 1)(z + h)$

10. Choose the answer below that best describes the type of equation:  $\frac{2}{x-6} + \frac{x}{x-4} = \frac{1}{3}$

- A. Exponential      B. Logarithmic      C. Quadratic      D. Rational

11. Choose the answer below that best describes the type of equation:  $5^{x-2} = 7^x$

- A. Exponential      B. Logarithmic      C. Quadratic      D. Rational

12. Solve the equation:  $3 - \frac{2}{y} = \frac{5}{6}$

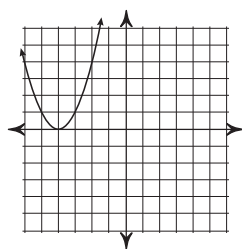
- A.  $\left\{-\frac{9}{5}\right\}$       B.  $\left\{-\frac{5}{9}\right\}$       C.  $\left\{\frac{13}{12}\right\}$       D.  $\left\{\frac{12}{13}\right\}$

13. Solve the equation:  $2y^2 - 2y = 3$

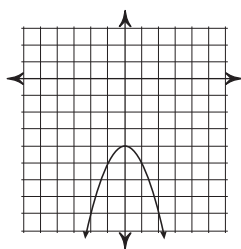
- A.  $\left\{\frac{2+\sqrt{3}}{4}, \frac{2-\sqrt{3}}{4}\right\}$       B.  $\left\{\frac{1+\sqrt{7}}{2}, \frac{1-\sqrt{7}}{2}\right\}$       C.  $\left\{\frac{1+\sqrt{5}}{2}, \frac{1-\sqrt{5}}{2}\right\}$       D.  $\left\{\frac{1+3\sqrt{3}}{2}, \frac{1-3\sqrt{3}}{2}\right\}$

14. To identify the graph of the function  $f(x) = x^2 - 4$ , make a table of values. Choose the graph that best represents the function.

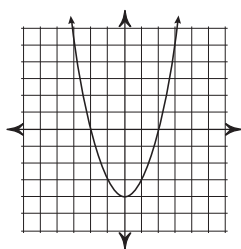
A.



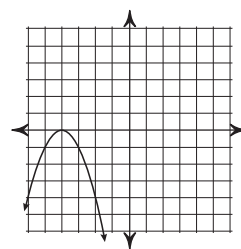
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C.

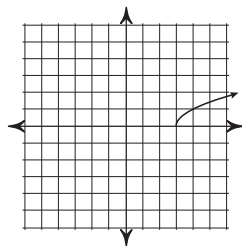


D.

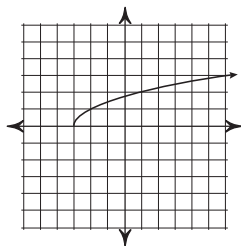


15. To identify the graph of the function  $f(x) = \sqrt{x} + 3$ , make a table of values. Choose the graph that best represents the function.

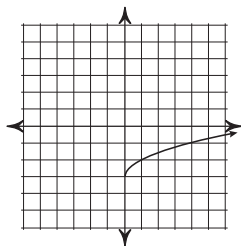
A.



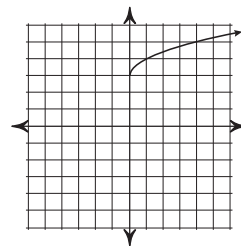
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C.

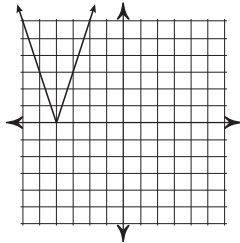


D.

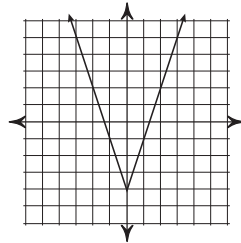


16. To identify the graph of the function  $f(x) = 3|x| - 4$ , make a table of values. Choose the graph that best represents the function.

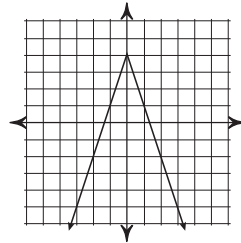
A.



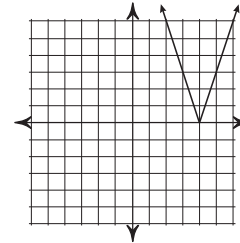
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C.

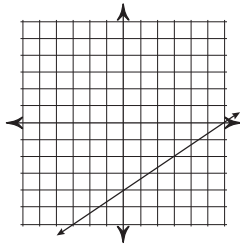


D.

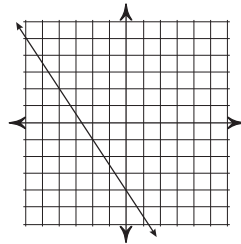


17. To identify the graph of the function  $f(x) = \frac{2}{3}x - 4$ , make a table of values. Choose the graph that best represents the function.

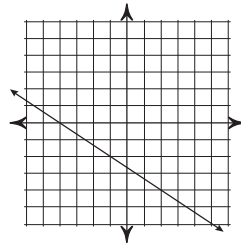
A.



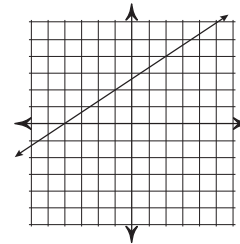
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C.

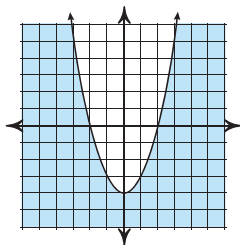


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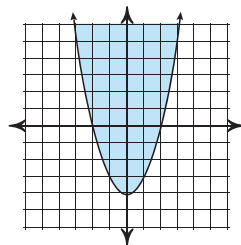


18. Choose the graph that best represents  $y \geq x^2 + 4$

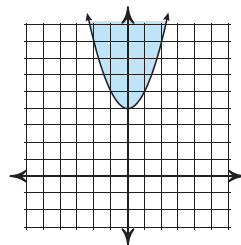
A.



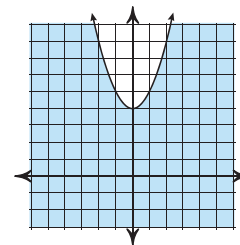
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C.

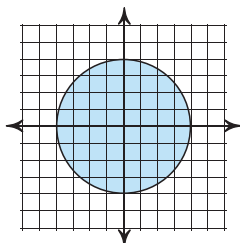


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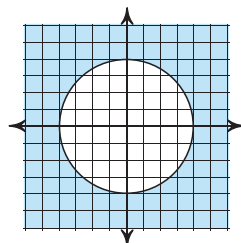


19. To identify the graph of the function  $x^2 + y^2 > 16$ , make a table of values. Choose the graph that best represents the function.

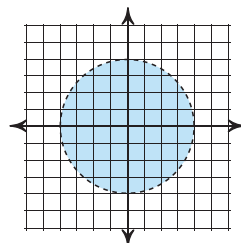
A.



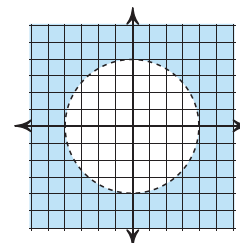
B.



C.



D.



**Answers:**

1. C

2. B

3. D

4. C

5. A

6. B

7. C

8. D

9. A

10. D

11. A

12. D

13. B

14. C

15. D

16. B

17. A

18. C

19. D