

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Factor the common factor out of each expression.**

1)  $12k - 15$

- A)  $3k(4k^2 - 5k)$
- B)  $3(12k - 15)$
- C)  $3(4k - 5)$
- D)  $3(2k - 5)$

2)  $-15x + 5$

- A)  $5(-3x + 1)$
- B)  $x(-3x + 1)$
- C)  $5(-15x^2 + 5)$
- D)  $5(-15x + 5)$

3)  $9m^2 - 6m$

- A)  $6m(3m - 2)$
- B)  $3m^2(3m - 2)$
- C)  $3m(3m - 2)$
- D)  $3m(-2m + 1)$

4)  $12k^2 - 16$

- A)  $4(3k^2 - 4)$
- B)  $4k(12k^2 - 16)$
- C)  $4(12k^2 - 16)$
- D)  $12(3k^2 - 4)$

5)  $x^6 - 5x^2 - 5x$

- A)  $x(x^5 - 5x^2 - 5x)$
- B)  $x^2(x^6 - 5x - 5)$
- C)  $2(x^5 - 25x^2 - 5)$
- D)  $x(x^5 - 5x - 5)$

6)  $9 - 3p + 6p^4$

- A)  $3p(3p - p^2 + 2p^4)$
- B)  $3p(3 - p + 2p^4)$
- C)  $3(1 - p + 2p^3)$
- D)  $3(3 - p + 2p^4)$

**Factor each completely.**

7)  $b^2 + 10b + 25$

- A)  $(b + 1)(b + 8)$
- B)  $(b - 5)(b + 9)$
- C)  $(b + 5)^2$
- D)  $(b - 5)(b + 5)$

8)  $k^2 + k - 56$

- A) Not factorable
- B)  $(k + 8)(k + 10)$
- C)  $(k - 7)(k + 8)$
- D)  $(k - 1)(k - 7)$

9)  $x^2 - 4x - 12$

- A)  $(x - 6)(x - 2)$
- B)  $(x - 5)(x - 2)$
- C)  $(x + 6)(x + 2)$
- D)  $(x - 6)(x + 2)$

10)  $b^2 + 9b + 18$

- A)  $(b - 6)(b - 5)$
- B)  $(b + 10)(b + 1)$
- C)  $(b - 9)(b + 7)$
- D)  $(b + 3)(b + 6)$

11)  $2v^2 + 7v + 3$

- A)  $(2v + 1)(v + 3)$
- B)  $(v + 1)(2v - 3)$
- C) Not factorable
- D)  $(7v - 6)(v - 1)$

12)  $5n^2 + 44n - 60$

- A)  $5(n - 6)(n - 10)$
- B)  $(5n + 6)(n - 10)$
- C)  $(5n - 6)(n + 10)$
- D)  $(7n - 1)(n - 8)$

13)  $3n^2 - 28n + 9$

- A)  $(5n + 6)(n - 5)$
- B)  $(3n + 1)(n + 9)$
- C)  $(3n - 1)(n - 9)$
- D)  $(2n - 7)(n - 8)$

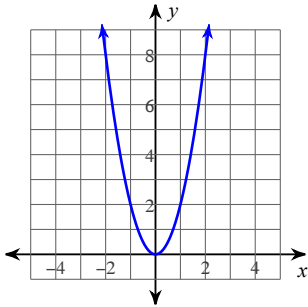
14)  $5k^2 - 51k + 54$

- A)  $(5k - 6)(k - 9)$
- B)  $(7k + 8)(k + 2)$
- C)  $(5k + 4)(k - 7)$
- D)  $(5k + 6)(k + 9)$

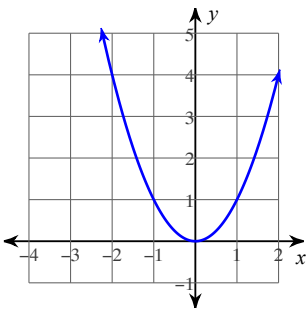
Sketch the graph of each function.

15)  $y = 3x^2$

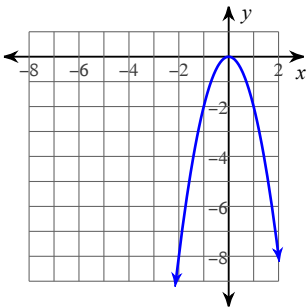
A)



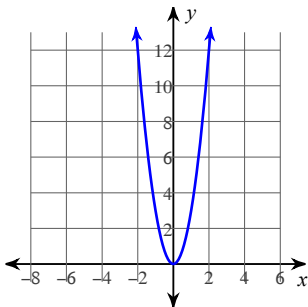
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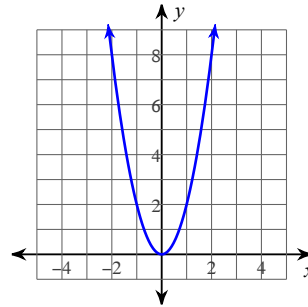


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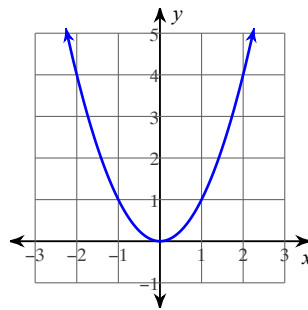


16)  $y = -x^2$

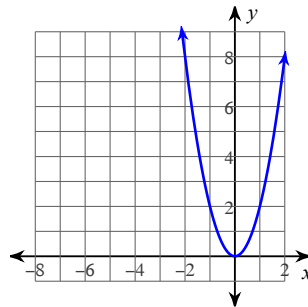
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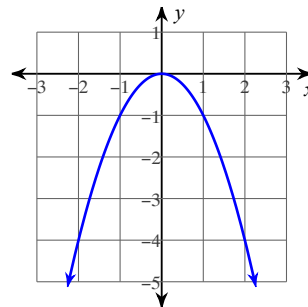
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C)

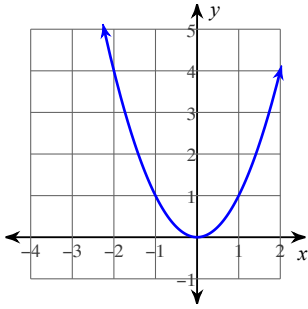


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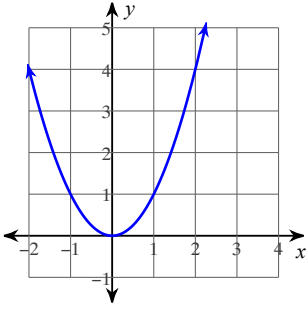


17)  $y = -2x^2$

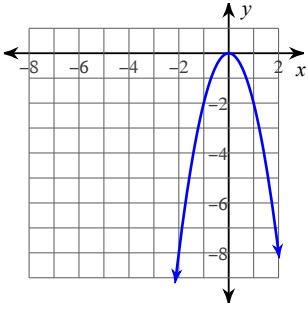
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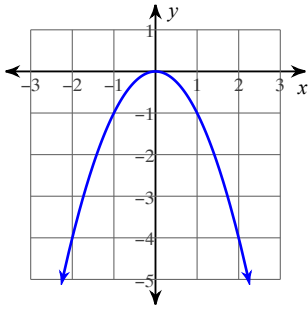
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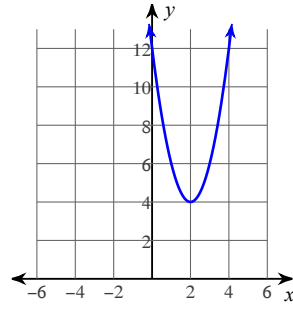


D)

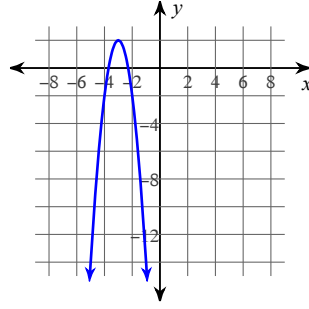


18)  $y = x^2 + 4x + 6$

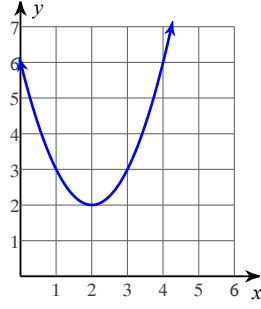
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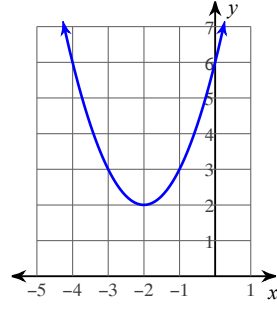
B)



C)

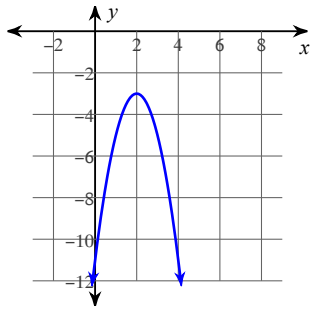


D)

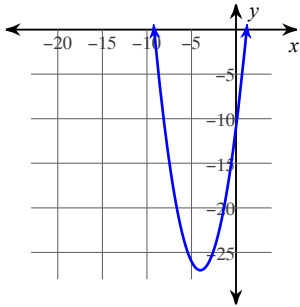


19)  $y = -2x^2 + 8x - 11$

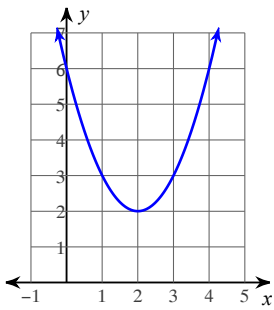
A)



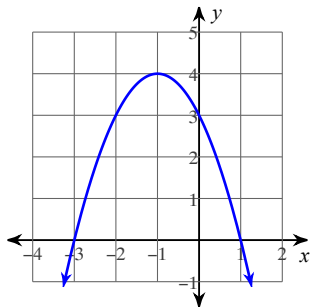
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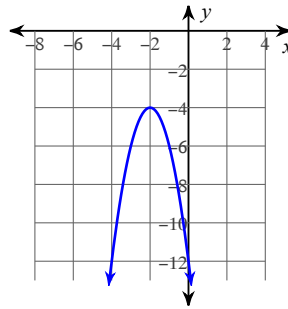


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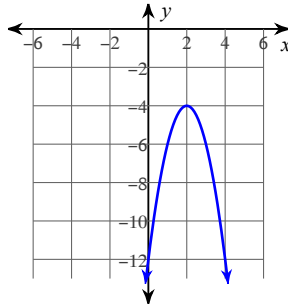


20)  $y = -2x^2 - 8x - 12$

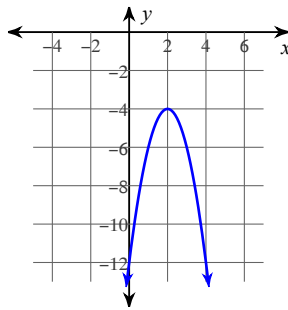
A)



B)



C)



D)

