

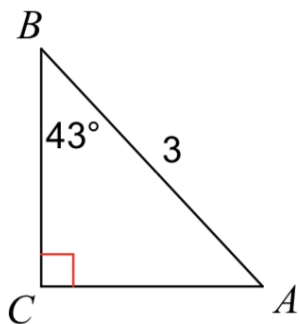
Secondary Math 3 Quarter 3 Final Review

Calculators Allowed

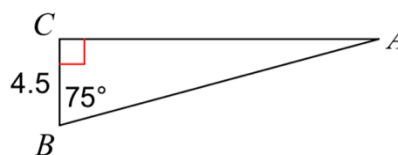
Solving Right Triangles

Find the indicated side or angle. Round to the nearest tenth.

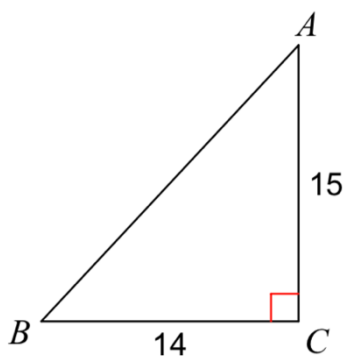
1. Side AC (side b).



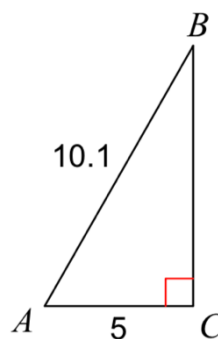
2. Side AB (side c).



3. Angle A.



4. Angle B.



Radians and Angles

Find a positive OR negative co-terminal angle for the given angle:

5. 285°

6. 215°

7. -435°

8. $\frac{5\rho}{6}$

9. $-\frac{4\rho}{3}$

10. $-\frac{\rho}{4}$

Unit Circle Trig

Find the exact value of each trigonometric function.

11. $\csc\frac{\rho}{4}$

12. $\cos\frac{3\rho}{4}$

13. $\cot\frac{\rho}{2}$

14. $\tan\frac{\rho}{6}$

15. $\sin\frac{5\rho}{6}$

16. $\sec\frac{5\rho}{6}$

17. $\sin\frac{17\rho}{6}$

18. $\cos\frac{9\rho}{4}$

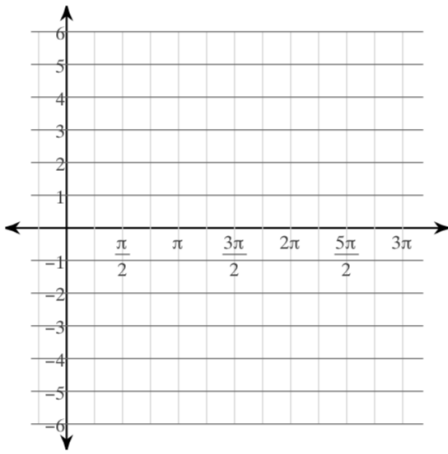
19. $\cot\frac{8\rho}{3}$

20. $\tan\left(-\frac{\rho}{3}\right)$

Graphing Trig Functions

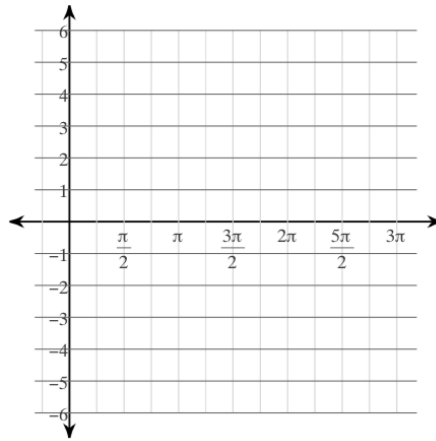
Graph the following functions. Identify the period and amplitude of each function.

21. $y = 3\sin q$



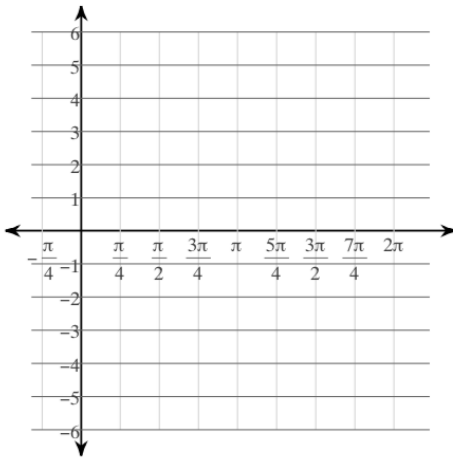
amp:
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22. $y = 4\cos q$



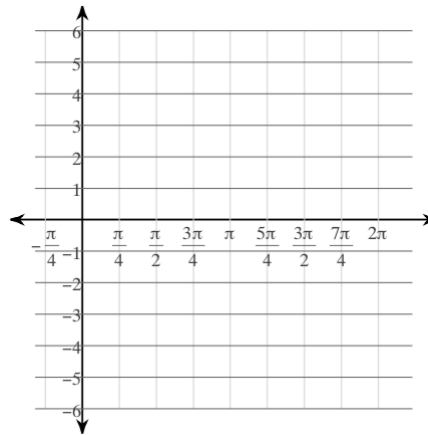
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23. $y = \cos 4q$



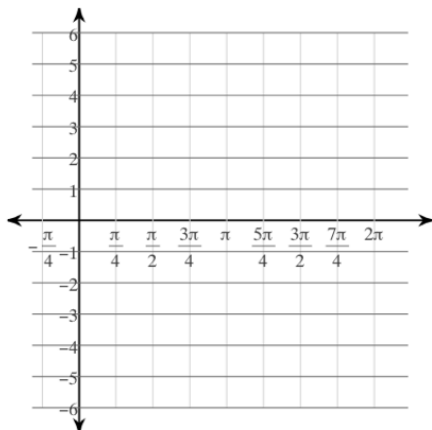
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24. $y = \sin 2q$



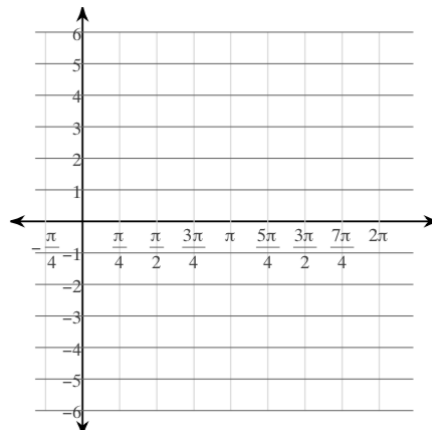
amp:
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25. $y = 4\sin 4q$



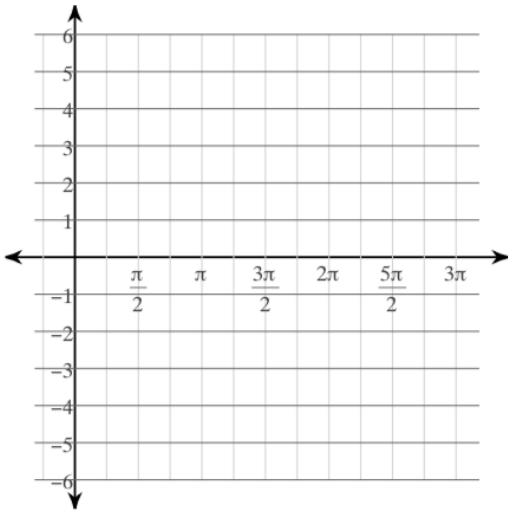
amp:
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26. $y = 2\cos 2q$



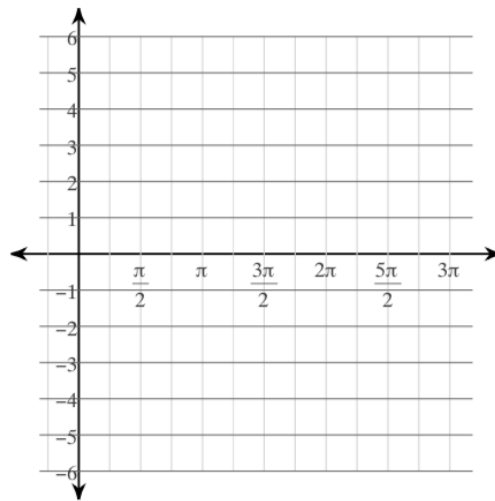
amp:
per:

27. $y = 4\cos q + 1$



amp:
per:

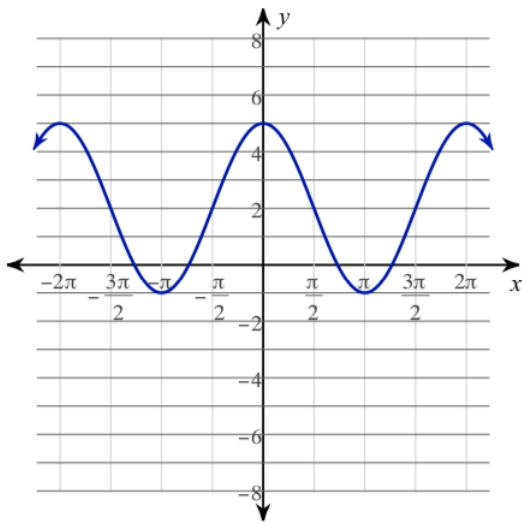
28. $y = 3\sin q - 2$



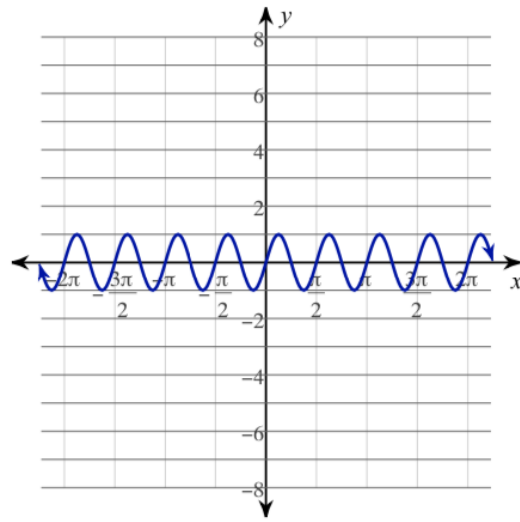
amp:
per:

Write an equation for the following graphs:

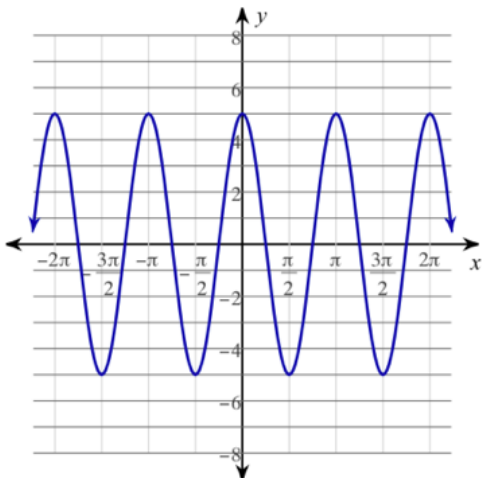
29. $y =$



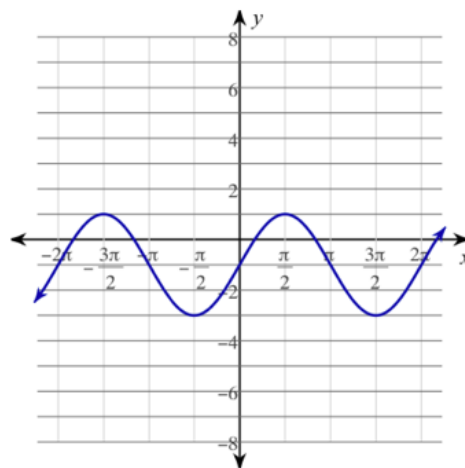
30. $y =$



31. $y =$

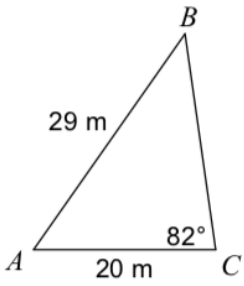


32. $y =$

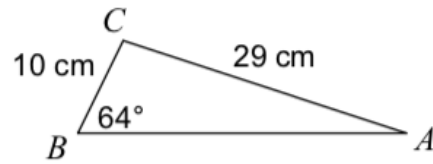


Law of Sines and Cosines

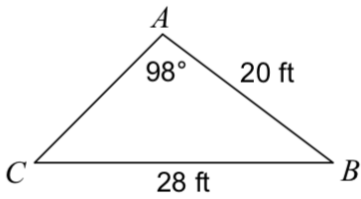
33. Find the measure of angle B.



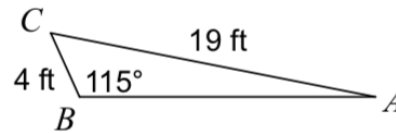
34. Find the measure of angle A.



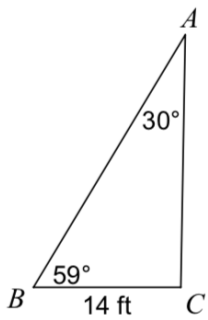
35. Find the measure of angle C.



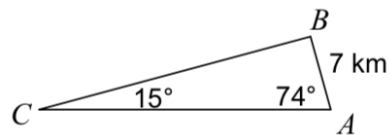
36. Find the measure of angle A.



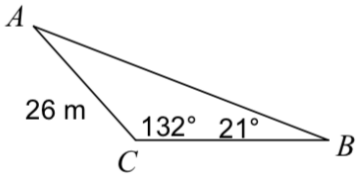
37. Find the length of AC (side b).



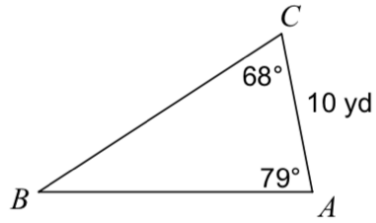
38. Find the length of BC (side a).



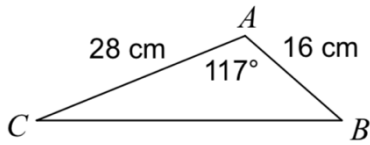
39. Find the length of AB (side c).



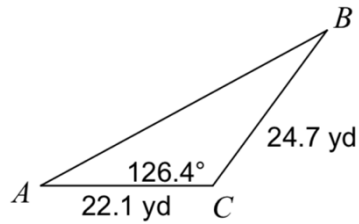
40. Find the length of side BC (side a).



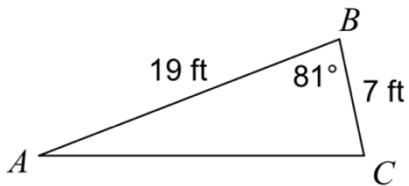
41. Find the length of BC (side a).



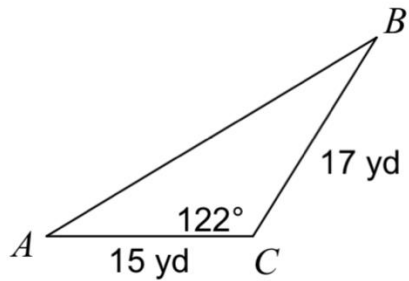
42. Find the length of AB (side c).



43. Find the length of side AC (side b).



44. Find the length of side AB (side c).



Secondary Math 3 Quarter 2 Final Review

No Calculators

Dividing Polynomials

Divide the following polynomials.

45. $(9n^4 + 36n^3 + 31n^2 + 19n + 21) \div (n + 3)$

46. $(a^5 - 4a^4 + 3a^3 - 36a^2 - 28a + 40) \div (a - 5)$

47. $(x^3 + 8x^2 + 13x + 2) \div (x + 2)$

48. $(7x^3 - 45x^2 + 28x - 61) \div (x - 6)$

49. $(5x^3 + 4x^2 - 4x + 1) \div (x + 1)$

50. $(5x^3 + 29x^2 + 18x - 15) \div (x + 5)$

51. $(n^4 - 2n^3 - 73n^2 - 73n + 27) \div (n - 10)$

52. $(4x^3 - 27x^2 - 74x - 56) \div (x - 9)$

Is $d(x)$ a factor of $f(x)$? Show your work to support your answer.

53. $f(x) = 5x^2 - 22x + 24$
 $d(x) = x - 2$

54. $f(x) = 11x^5 - 18x^4 + 4x^3 - 4x^2 - 5x + 23$
 $d(x) = x - 1$

55. $f(x) = 2x^4 + 6x^3 - 19x^2 + 11$
 $d(x) = x - 1$

56. $f(x) = x^3 + 2x^2 - x - 2$
 $d(x) = x + 2$

Zeros of Polynomials and Graphing Polynomials

57. $f(x) = x(x + 1)(x + 3)$

Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

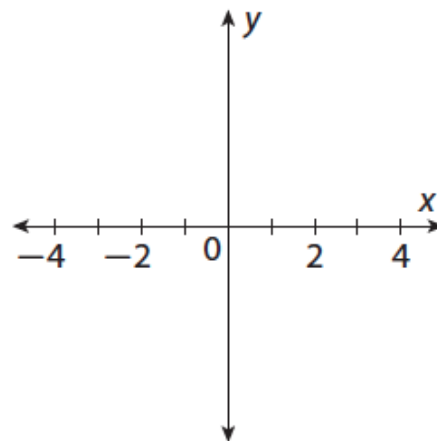
Left End Behavior:

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function $f(x)$:



58. $f(x) = -(x - 1)(x + 2)^3$

Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

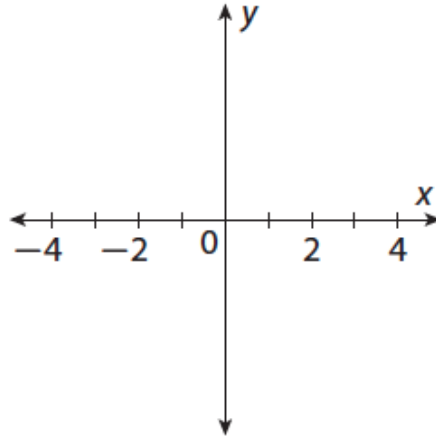
Left End Behavior:

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function $f(x)$:



59. $f(x) = -x(x - 2)^2$

Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

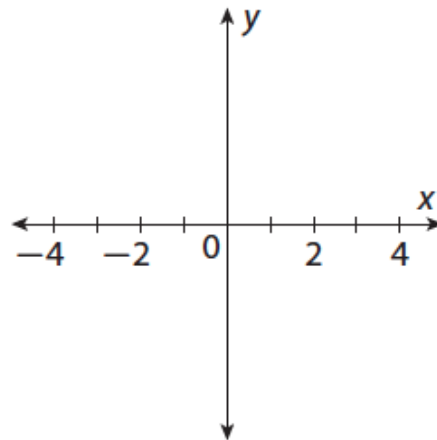
Left End Behavior:

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function $f(x)$:



60. $f(x) = (x + 1)^2(x - 1)(x - 2)$

Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

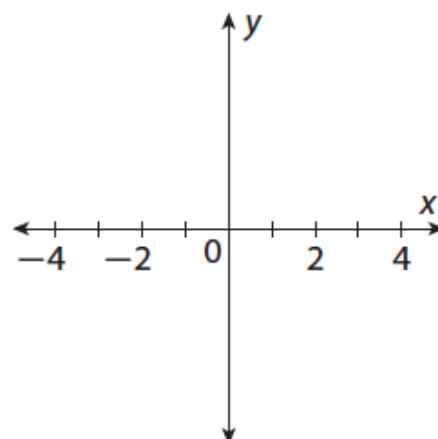
Left End Behavior:

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:

$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function $f(x)$:



61. $f(x) = -(x+3)^2(x+1)^3(x-4)$

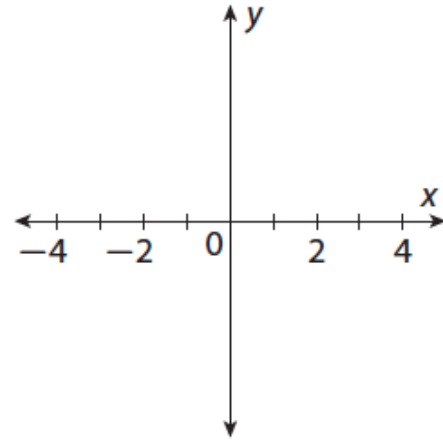
Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

Left End Behavior:
 $x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:
 $x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function f(x):



62. $f(x) = x^3(x+1)(x-2)$

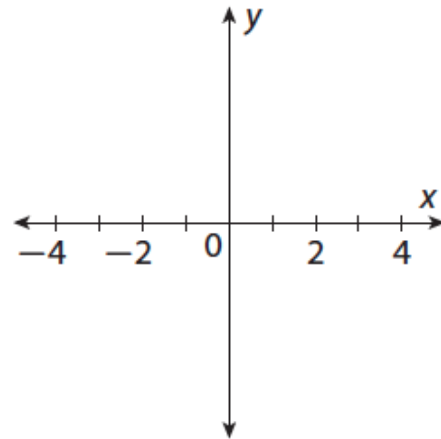
Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

Left End Behavior:
 $x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:
 $x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function f(x):



63. $f(x) = -(x+1)(x-2)(x-3)$

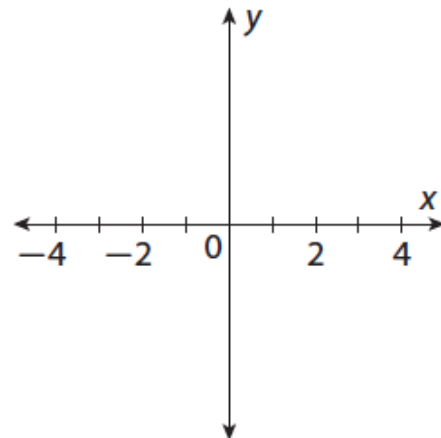
Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

Left End Behavior:
 $x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:
 $x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function f(x):



64. $f(x) = x^2(x - 2)$

Find the zeros and multiplicity.

Zeros	Multiplicity	Intersection

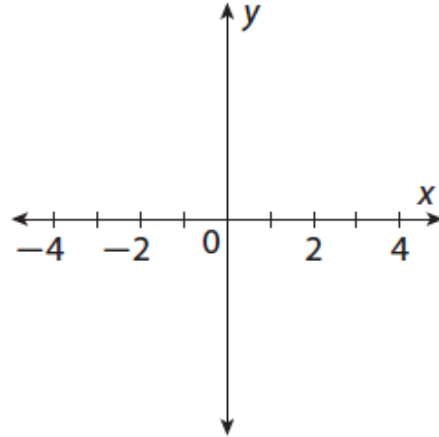
Left End Behavior:

$x \rightarrow -\infty, y \rightarrow \underline{\hspace{2cm}}$

Right End Behavior:

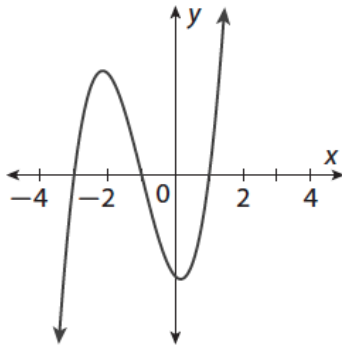
$x \rightarrow \infty, y \rightarrow \underline{\hspace{2cm}}$

Sketch a graph of the function $f(x)$:



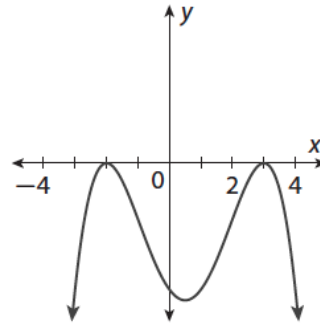
Write a function in factored form for the graph.

65.



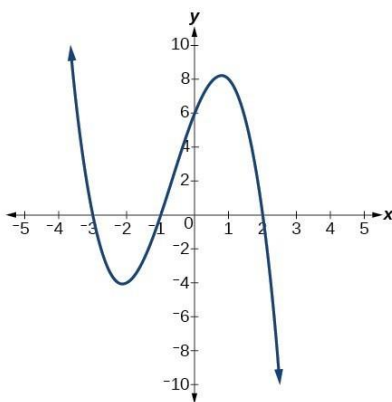
$f(x) =$

66.



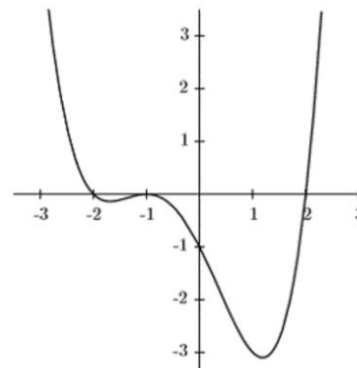
$f(x) =$

67.



$f(x) =$

68.



$f(x) =$