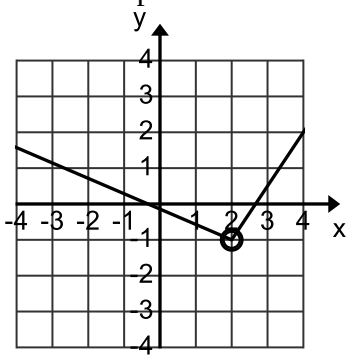
Algebra 2 Chapter 2 Practice Test

Name: _____ Time› Start: _____ Finish: _____ Total Time = _____

Look at the graphs and classify as Continuous or Discontinuous. If it is discontinuous, state what type it is such as infinite, removeable (hole), jump, or endpoint.

Graph 1

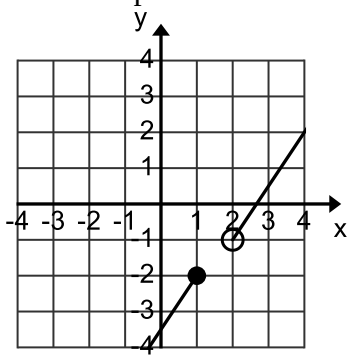


1. _____

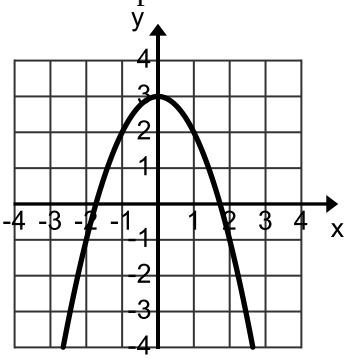
2. _____

3. _____

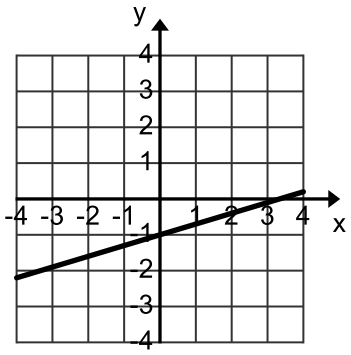
Graph 2



Graph 3



Graph 4

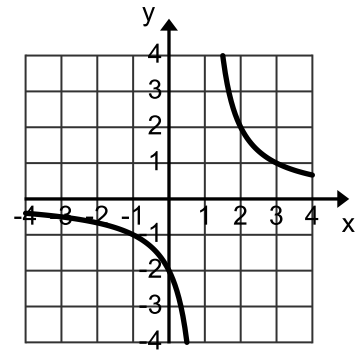


4. _____

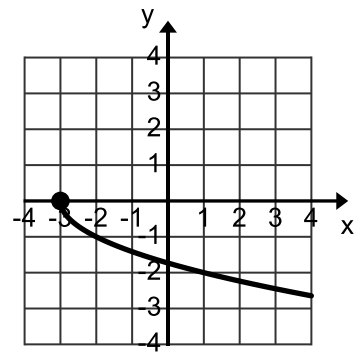
5. _____

6. _____

Graph 5



Graph 6



For 7-16, change any interval notation to inequality notation and any inequality notation to interval notation.

_____ 7. (-3, 8]

_____ 8. $x > 4$

_____ 9. $(-3, \infty)$

_____ 10. [2, 9]

_____ 11. $1 < x \leq 5$

_____ 12. $x \leq -7$

_____ 13. $(-\infty, 8]$

_____ 14. $\mathbb{R}$

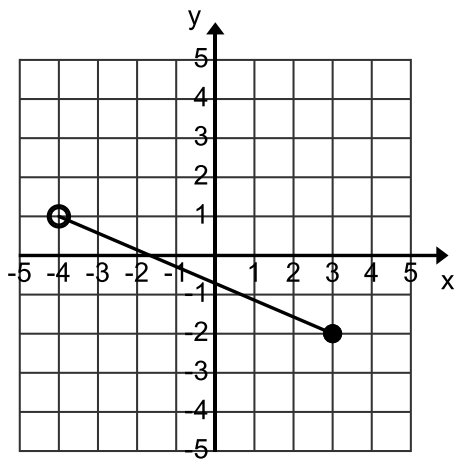
_____ 15. $(-11, \infty)$

_____ 16. $x > -54$

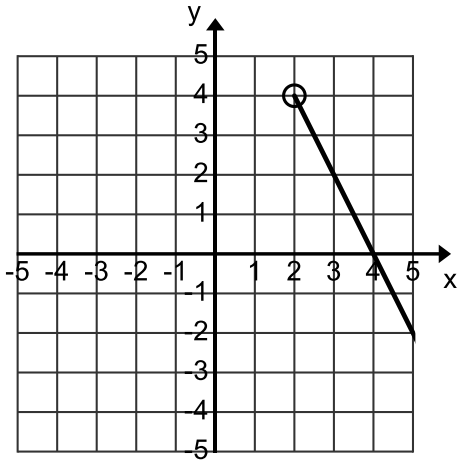
Consider the following graphs and give the domain and range of them in both notations.

Graph	Interval Notation	Inequality Notation
17.	Domain: Range:	Domain: Range:
18.	Domain: Range:	Domain: Range:
19.	Domain: Range:	Domain: Range:
20.	Domain: Range:	Domain: Range:

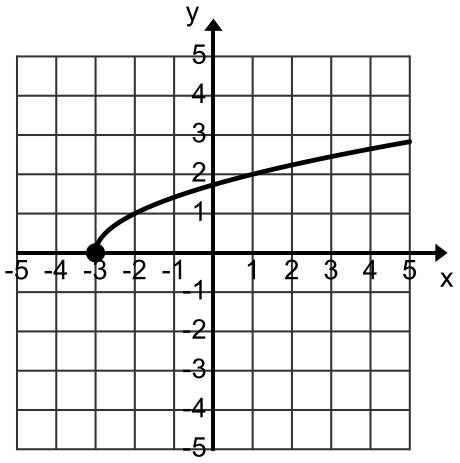
Graph 17



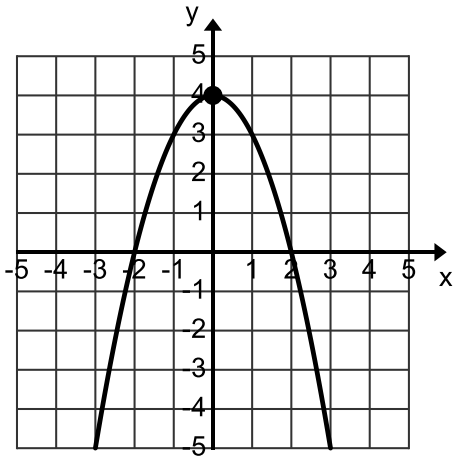
Graph 18



Graph 19



Graph 20



State the domain of each function below. Think about the restrictions.

_____ 21. $f(x) = \frac{2x-1}{x+4}$

_____ 22. $f(x) = 4x - 4$

_____ 23. $f(x) = \sqrt{x-11}$

_____ 24. $f(x) = \frac{5}{x-7}$

_____ 25. $f(x) = \frac{3+x}{x}$

_____ 26. $f(x) = \sqrt{5x-7}$

_____ 27. $f(x) = 2x - 10$

_____ 28. $f(x) = 4\,|\,x + 5\,|$

_____ 29. $f(x) = \sqrt[4]{x-2}$

_____ 30. $f(x) = 2\sqrt[9]{4x-23}$

_____ 31. $f(x) = \sqrt{3x+15}$

32. Absolute Maximum: _____

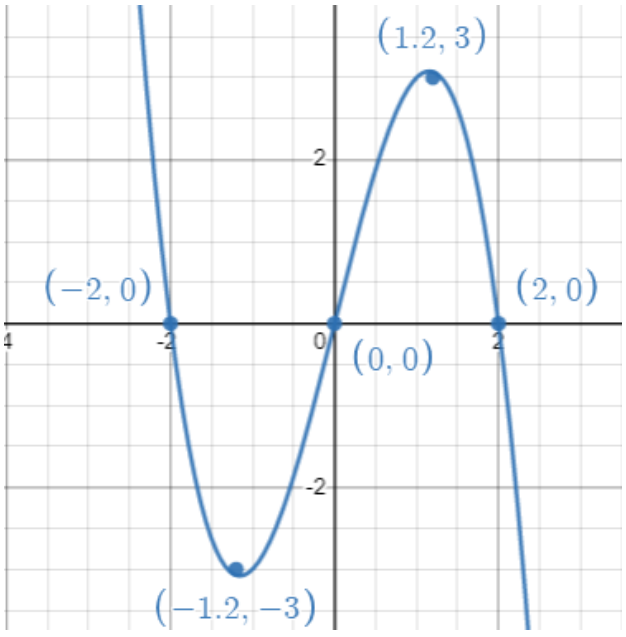
Absolute Minimum: _____

Relative Maximum: _____

Relative Minimum: _____

Increasing Intervals: _____

Decreasing Intervals: _____



33. Absolute Maximum: _____

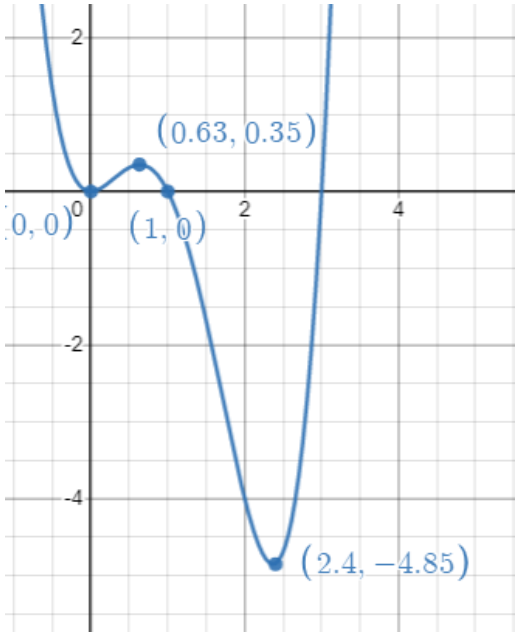
Absolute Minimum: _____

Relative Maximum: _____

Relative Minimum: _____

Increasing Intervals: _____

Decreasing Intervals: _____



34. Absolute Maximum: _____

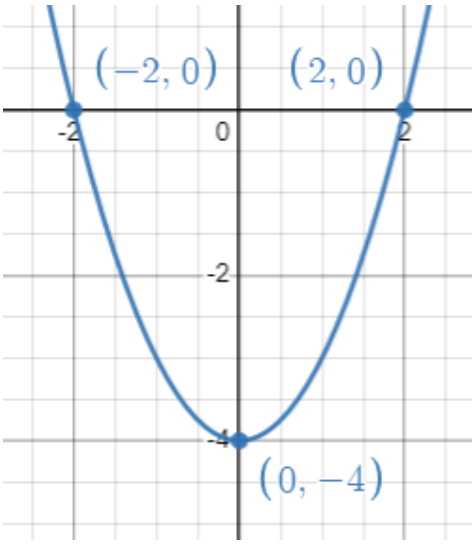
Absolute Minimum: _____

Relative Maximum: _____

Relative Minimum: _____

Increasing Intervals: _____

Decreasing Intervals: _____



35. Absolute Maximum: _____

Absolute Minimum: _____

Relative Maximum: _____

Relative Minimum: _____

Increasing Intervals: _____

Decreasing Intervals: _____