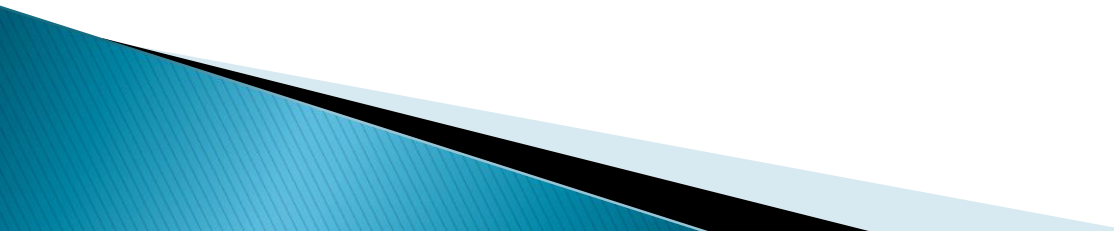


Do Now – Domain Practice

- 1) What is a function?
- 2) What is domain?
- 3) What are the two types of functions that can restrict the domain?
- 4) Find the domain of the following functions:
 - a. $f(x) = \sqrt{x - 7}$
 - b. $f(x) = \sqrt{7 - x}$

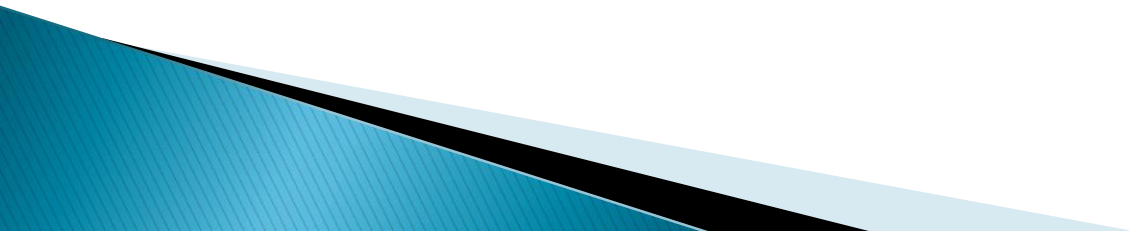
Yesterday's Quiz Results – Domain

- ▶ Class Average – 71%
 - ▶ Club 100%
 - ▶ Lauren Holland
 - ▶ Ahja Howard
 - ▶ Jazmin Zamorano
 - ▶ Jailene Zelaya
 - ▶ Club 88%
 - ▶ Nathalie Carmona
 - ▶ Diana Galvan
 - ▶ Karen He
 - ▶ Abigail Liang
 - ▶ Samantha Zarate
- 

Domain / Range

6/26/14

Domain Practice, Part II



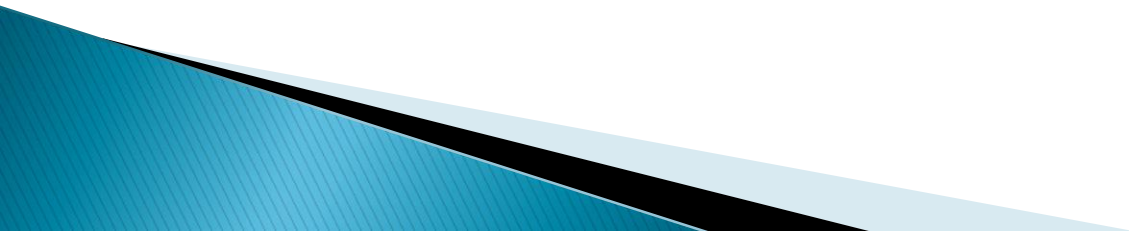
Find domain of $f(x) = \sqrt{x - 4}$

Verbal	Analytic	Numeric	Graphic

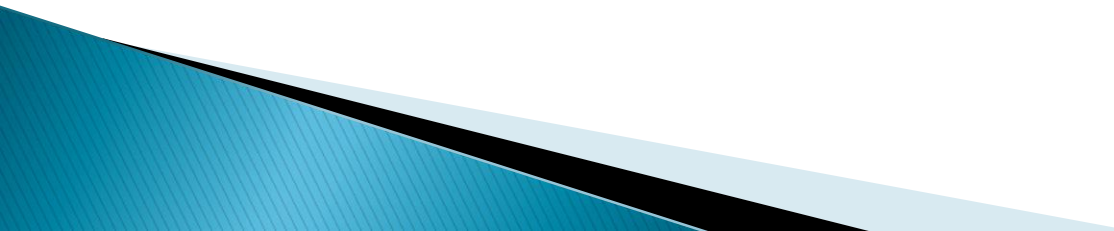
Find domain of $f(x) = \frac{1}{x+5}$

Verbal	Analytic	Numeric	Graphic

Domain Practice Part III



Domain

- ▶ Let the time of day be modeled by the function $t(x)$, given the number of minutes after the hour, x .
 - ▶ What is the domain of this function?
- 

Domain

- ▶ The average annual price of gasoline can be modeled by the cubic function:

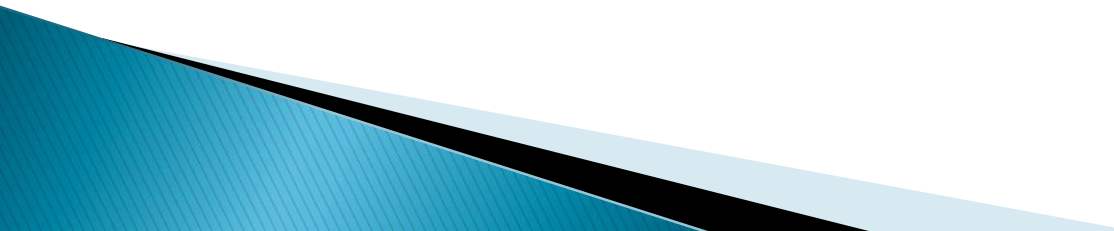
$f(x) = 0.0007x^3 - 0.014x^2 + 0.08x + 0.96$, where x is the number of years after 1987 and $f(x)$ is the price in dollars.

- ▶ What is the domain of this function?
- 

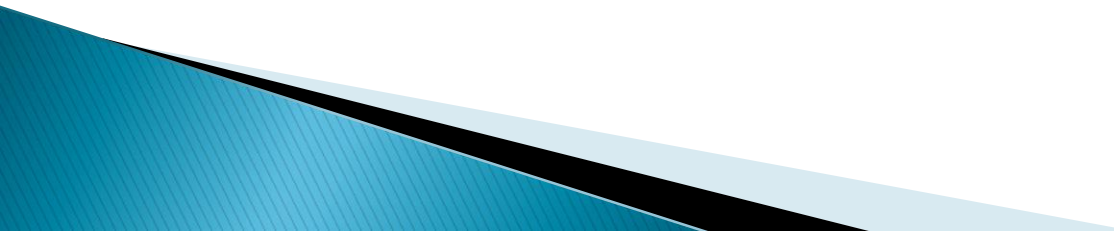
Domain

- ▶ Let the function $STL(x)$ represent the cost of the 2016 trip to St. Louis, where x is the number of students who attended the trip. What is the domain of this function?

Domain

- ▶ Let the lifespan of a dog be modeled by the equation $l(x)$, where x is the weight of the dog, in pounds, when it is born.
 - ▶ What is the domain of this function?
- 

Domain

- ▶ Let the number of people walking outside in Chicago be modeled by the equation $w(x)$, where x is the temperature outside, in degrees Fahrenheit.
 - ▶ What is the domain of this function?
- 

Range!

- ▶ It's like domain, except looking at $f(x)$, or the outputs.

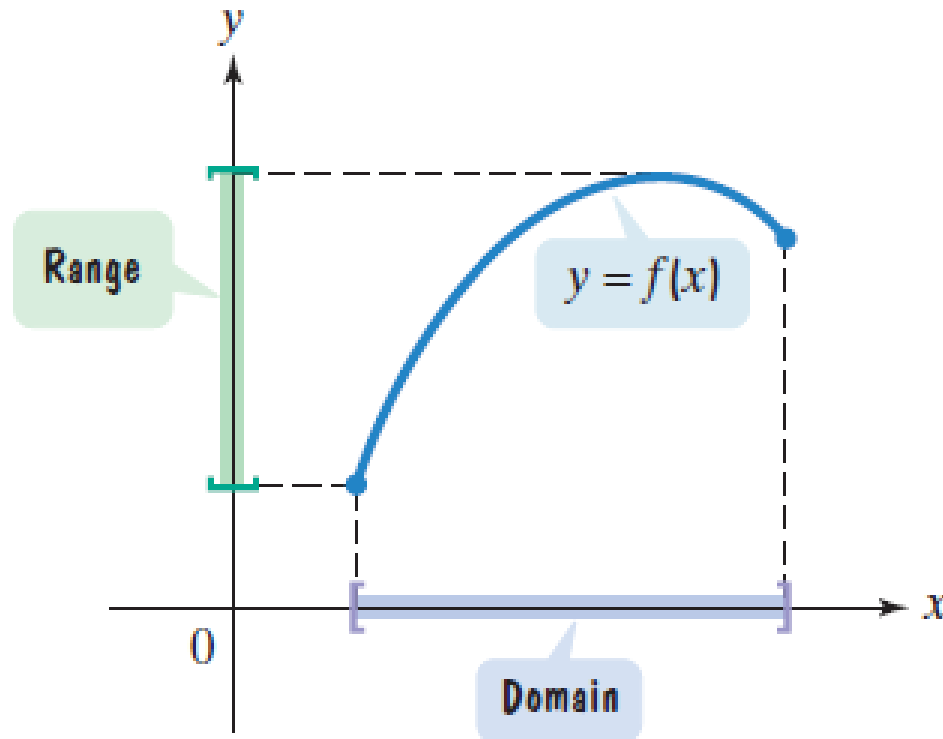


Figure 2.12 Domain and range of f

Domain? Range?

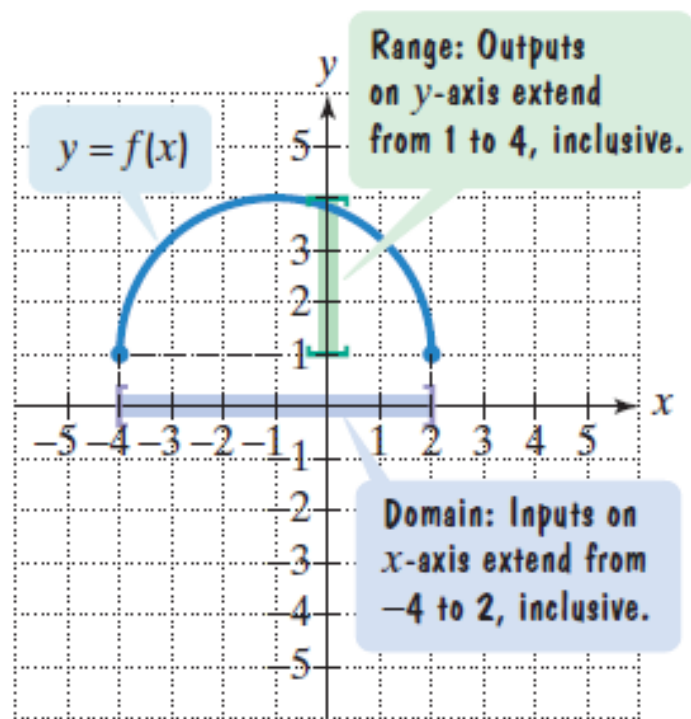
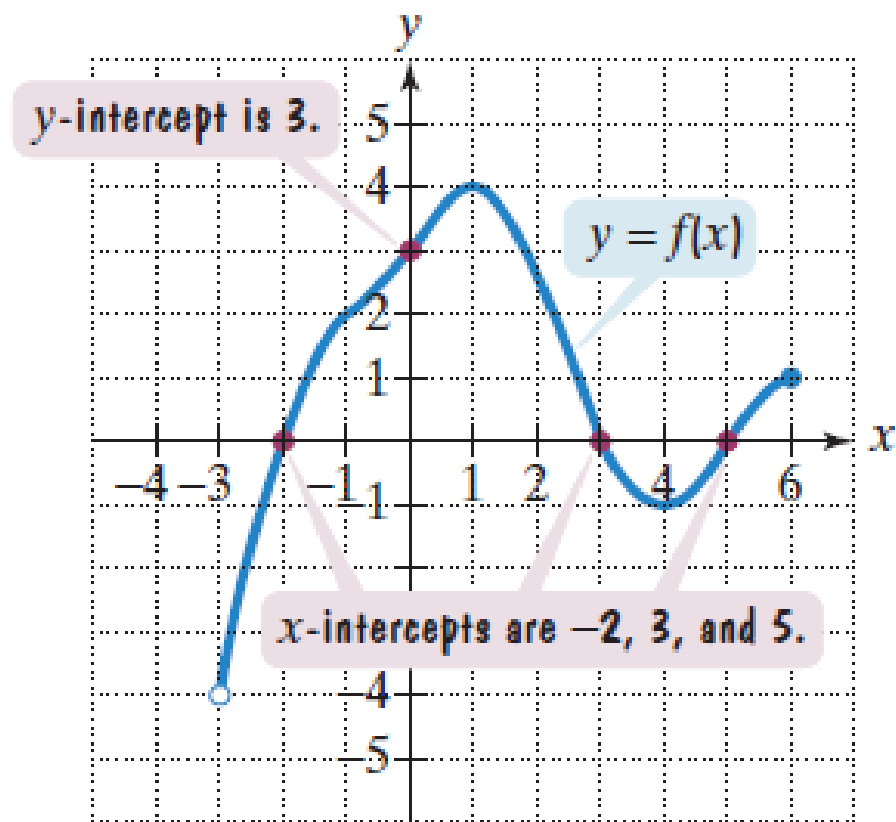


Figure 2.13 Domain and range of f



Find the domain and range of the following.

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

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

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

4. $f(x) = 3x$

5. $f(x) = -2x^2 + 6$

Exit Ticket

- ▶ Good luck!