

1.2: Functions

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Q: what is a fct

Domain

Range.

Is it a fct:

$f: \text{City} \rightarrow \text{prof. team}$

$g: \text{prof. team} \rightarrow \text{city.}$

ex1: $c(x) = \frac{x^2 - 1}{x}$

a) $c(1)$; $c(0)$; $c(-2)$

b) Domain.

ex2: $f(x) = 3x^2 - 6x$ for $h \neq 0$

a) $f(3+2) \stackrel{?}{=} f(3) + 2$

b) $f(x+h)$

c) $f(x+h) \stackrel{?}{=} f(x) + h$

d) $f(x+h) \stackrel{?}{=} f(x) + f(h)$

e) $\frac{f(x+h) - f(x)}{h}$

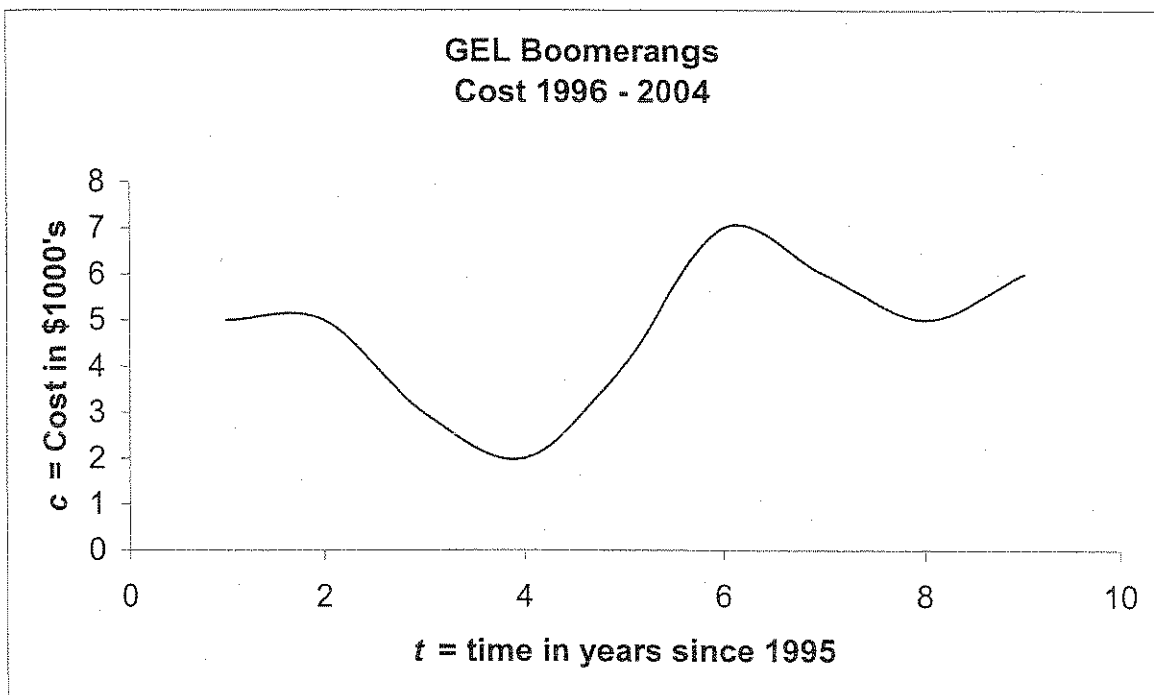
ex 3: Find the domain

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a) $f(x) = \frac{x+2}{\sqrt{x-7}}$

b) $g(x) = -2 - \sqrt{9-x^2}$... by graphing.

FUNCTIONS & GRAPHS # 2



Instructions: Answer each question using a complete sentence.

- 1.) What does $t=4$ represent? _____
- 2.) What does $c=5$ represent? _____
- 3.) What is the domain of $c(t)$? _____
- 4.) What is the range of $c(t)$? _____
- 5.) Find and interpret $c(2)$ _____
- 6.) Find and interpret $c(7)$ _____
- 7.) Solve and interpret $p(t) = 7$ _____
- 8.) Solve and interpret $p(t) = 6$ _____
- 9.) Is it better to have higher costs or lower costs? _____
- 10.) Explain the similarities and difference on the graph between $t=2$ and $t=6$. _____
- 11.) Find and interpret $c(6) - c(4)$ _____