

Calculus I**Section 2.1 - Functions and Domains**

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

a. $f(0) =$

b. $f(-3) =$

c. $f(x-1) =$

2. $f(x) = \begin{cases} 1-x, & x < 1 \\ \sqrt{x-1}, & x \geq 1 \end{cases}$

a. $f(3) =$

b. $f(1) =$

c. $f(0) =$

Find the domain and range for the following. A graph may help.

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

4. $g(x) = \frac{4}{x}$

5. $h(x) = \sqrt{x-1}$

6. $f(x) = \frac{1}{2}x^3 + 2$

7. $f(x) = \sqrt{25-x^2}$

8. $f(x) = \frac{1}{\sqrt{9-x^2}}$

9. $g(x) = \frac{1}{x^2 - 2x + 2}$

10. $h(x) = \sqrt{x^2 - 4}$