

FSAP 10  
Functions

Name:\_\_\_\_\_

1. Let  $f(x) = 2x - 1$ 
  - (a) Explain why  $f(x)$  does not mean  $f \cdot x$ .
  - (b) What does  $f(2)$  mean?
  - (c) Evaluate  $f(2)$ .
  - (d) For what  $x$  is  $f(x) = 3$ ?
2. Let  $g(x) = -3x + 5$ 
  - (a) Evaluate  $g(5)$
  - (b) For what  $x$  is  $g(x) = 10$ ?
  - (c) Function notation is nice in that you can use a variable as input: Evaluate  $g(s)$ .
  - (d) Evaluate  $g(x^2)$ .
3. Graph  $f(x) = x^2$  for  $x$  from -3 to 3
4. Graph  $g(x) = (x - 2)^2$  for  $x$  from -2 to 5
5. Graph  $h(x) = x^2 + 3$  for  $x$  from -3 to 3
6. Graph  $k(x) = (x + 1)^2$  for  $x$  from -4 to 3