

Write the equation for the following transformations:

- a) Base graph: $y = x^2$, left 3, vertical stretch x 2 _____
- b) Base graph: $y = x^2$, right 5, up 3 _____
- c) Base graph: $y = x^2$, flip, vertical stretch x 3 _____
- d) Base graph: $y = x^2$, right 2, flip _____
- e) Base graph: $y = |x|$, left 1, vertical stretch x 4 _____
- f) Base graph: $y = |x|$, right 5, up 3 _____
- g) Base graph: $y = |x|$, left 3, vertical stretch x 2 _____
- h) Base graph: $y = |x|$, left 2, down 3, vertical stretch x 2, flip _____
- i) Base graph: $y = x^3$, right 3, up 4 _____
- j) Base graph: $y = x^3$, flip, vertical stretch x 3 _____
- k) Base graph: $y = \sqrt{x}$, right 3, down 2 _____
- l) Base graph: $y = \frac{1}{x}$, right 3, down 2 _____

Function notation

$$f(x) = 3x + 2$$

$$g(x) = -5x^2 - 6$$

- Find $f(3)$
 $f(6)$
 $f(0)$
 $f(-4)$

- Find $g(1)$
 $g(4)$
 $g(0)$
 $g(-4)$