

**Algebra II : 1.6,1.7,1.9 Worksheet**

Name \_\_\_\_\_

1) Let  $f(x) = 5x - 6$ . Find each of the following.

A)  $f(-1) =$  \_\_\_\_\_

C)  $f(a^3) =$  \_\_\_\_\_

B)  $f(0) =$  \_\_\_\_\_

D)  $f(x - h) =$  \_\_\_\_\_

2) Let  $g(x) = 9x - 2$ . Find each of the following.

A)  $g(-5) =$  \_\_\_\_\_

C)  $g(a^2) =$  \_\_\_\_\_

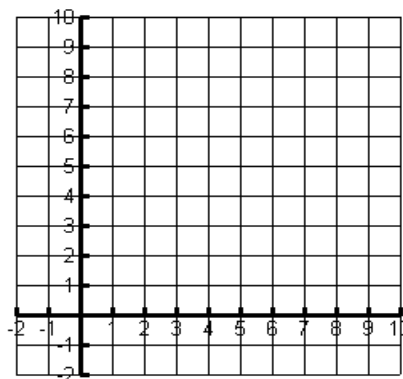
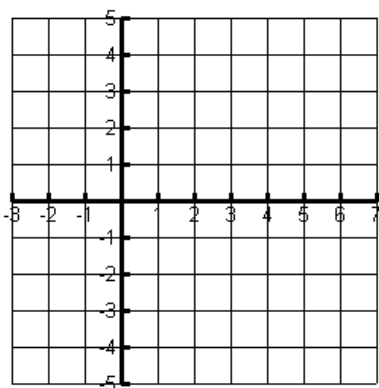
B)  $g(0) =$  \_\_\_\_\_

D)  $g(x + h) =$  \_\_\_\_\_

Graph the functions below on the graph provided. **Label at least 3 points on each graph.** Place an arrow on the end of any graph that continues on off the graph and a solid dot on the end of any graph that stops at a point or an open circle on any point that the graph goes up to but does not include.

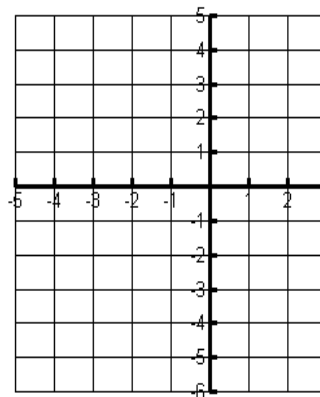
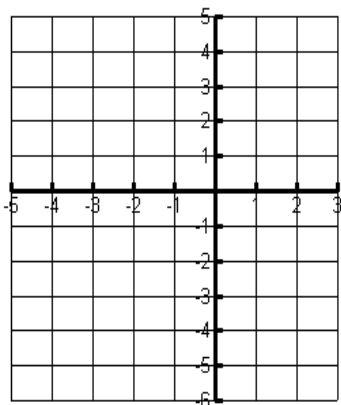
3) (A)  $f(x) = \frac{3}{2}x - 1$  for  $-2 \leq x < 3$

(B)  $g(x) = \sqrt{x-2}$  for  $x \geq 2$

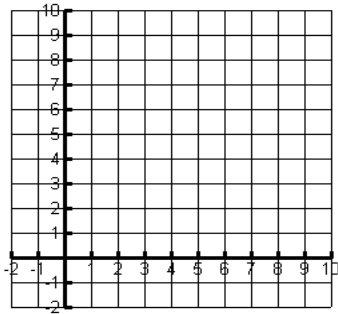


4) (A)  $f(x) = \frac{3}{2}x + 1$  for  $-2 < x \leq 2$

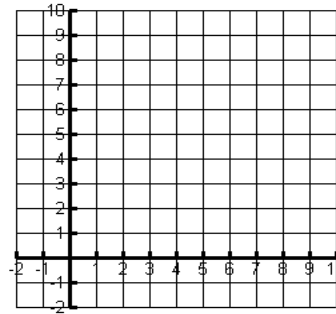
(B)  $g(x) = \sqrt{x+1} - 3$  for  $x \geq -1$



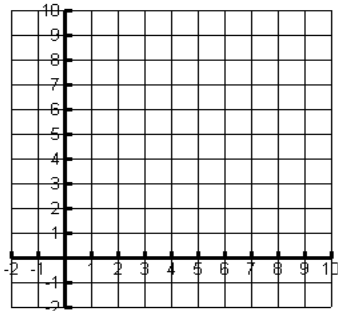
5) Draw a Linear Function



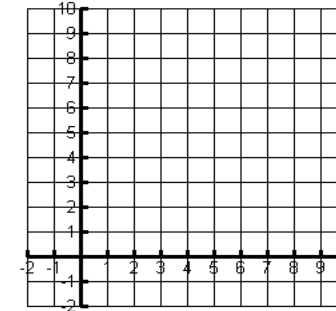
6) Draw a Cubic Function



7) Draw a Square Root Function



8) Draw a Quadratic Function



9) In your own words explain the relationship between the input and the output of a function.

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10. Is this a function? Explain your answer (5,2)(3,9)(2,7)(0,0)(3,6)

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