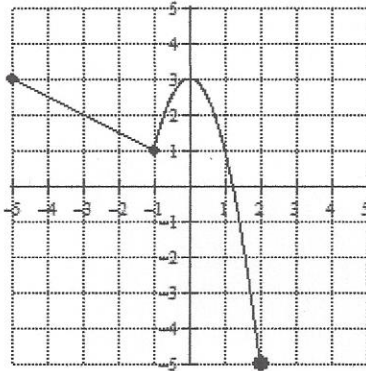


Determining Domain and Range of a Function

Using interval notation, identify the domain and range of each graphed function.

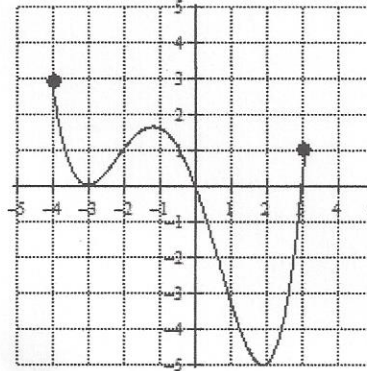
1. Domain: _____

Range: _____



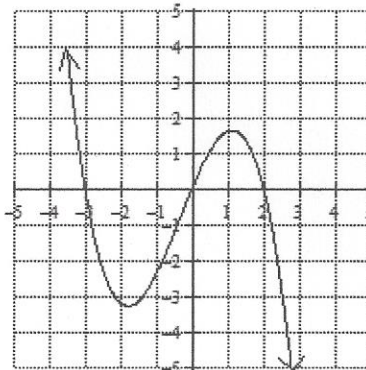
2. Domain: _____

Range: _____



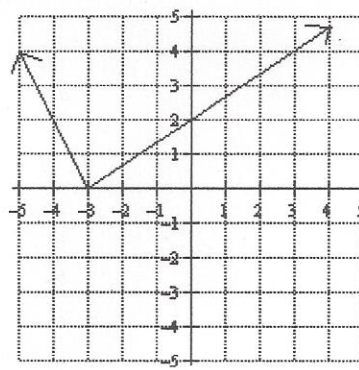
3. Domain: _____

Range: _____



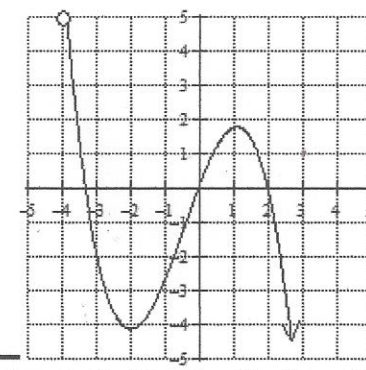
4. Domain: _____

Range: _____



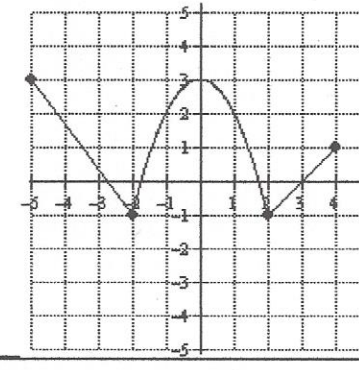
5. Domain: _____

Range: _____



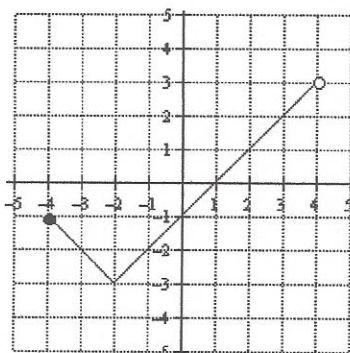
6. Domain: _____

Range: _____



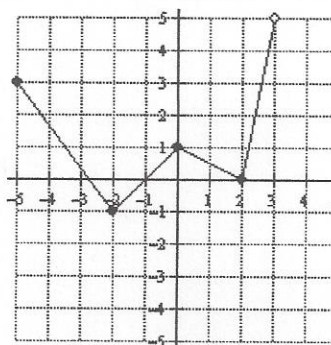
7. Domain: _____

Range: _____



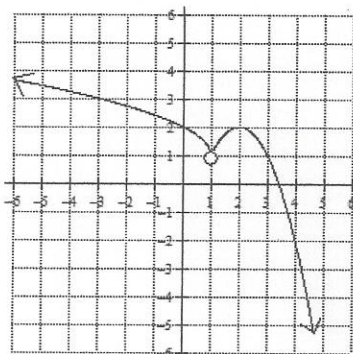
8. Domain: _____

Range: _____



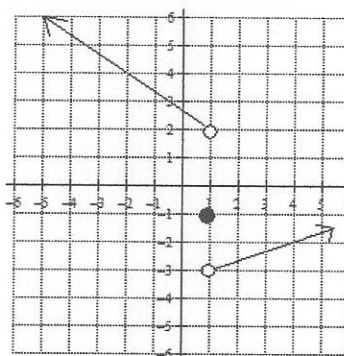
9. Domain: _____

Range: _____



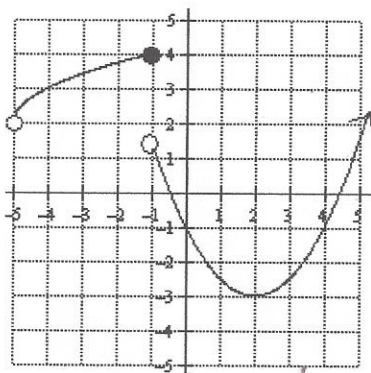
10. Domain: _____

Range: _____



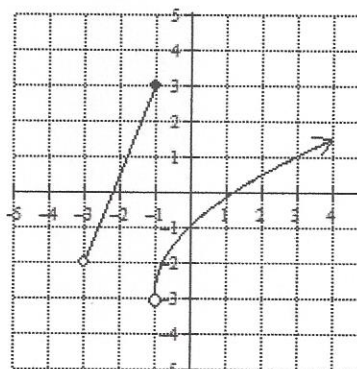
11. Domain: _____

Range: _____



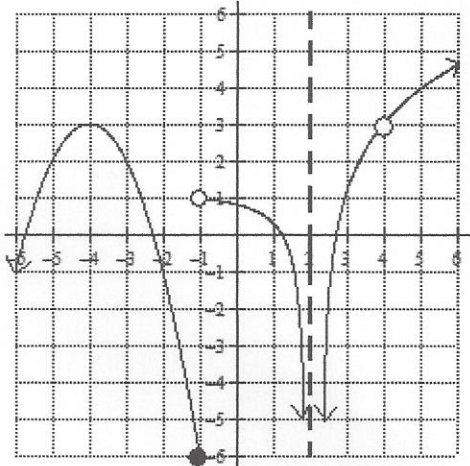
12. Domain: _____

Range: _____



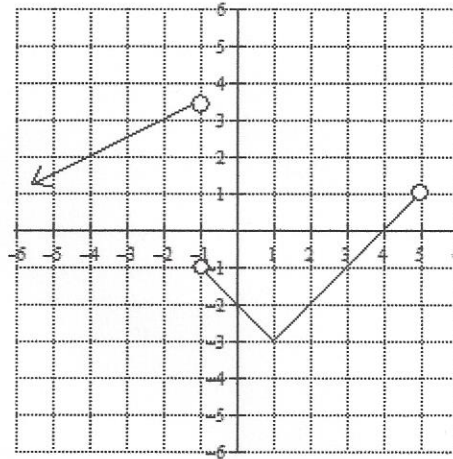
13. Domain: _____

Range: _____



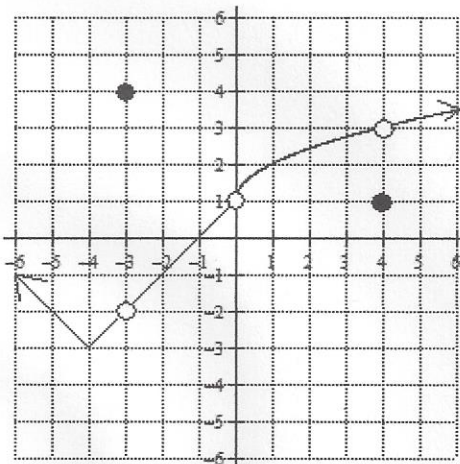
14. Domain: _____

Range: _____



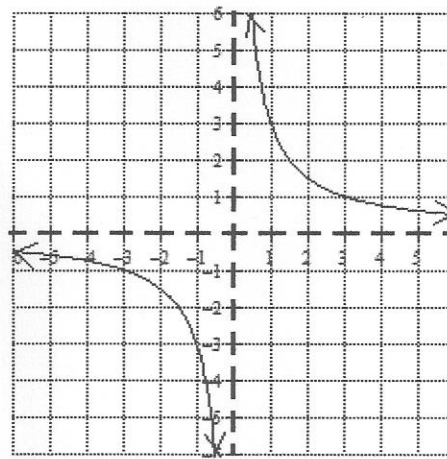
15. Domain: _____

Range: _____



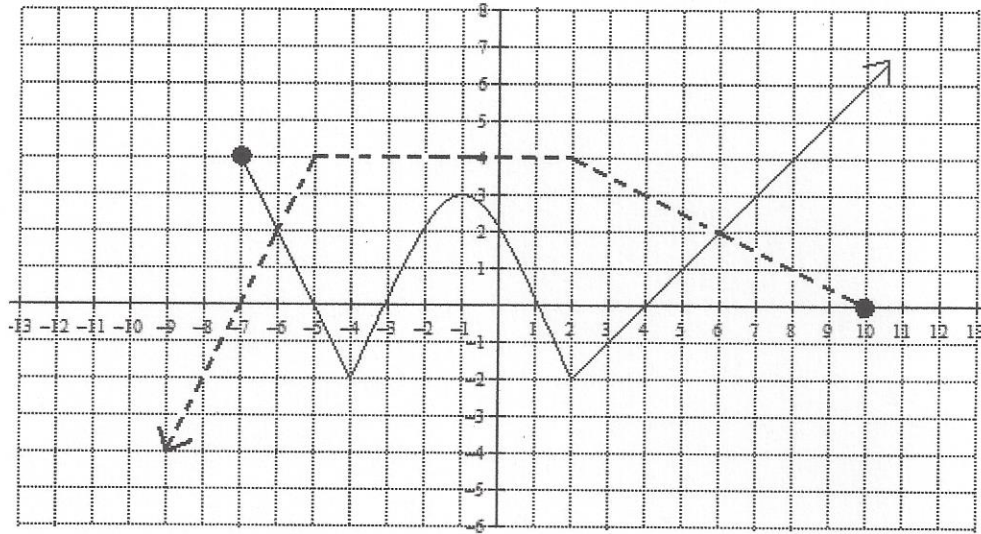
16. Domain: _____

Range: _____



$F(x)$ is the solid line graph below.

$G(x)$ is the dashed line graph below.

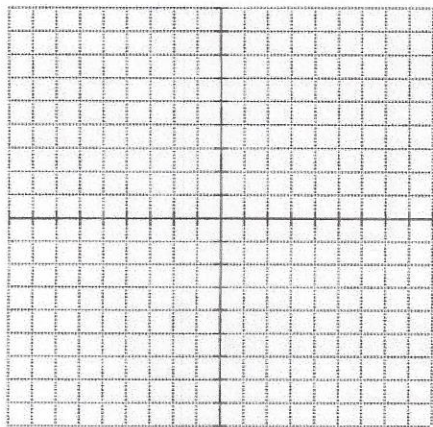


1. Intervals of x where $F(x)$ has increasing function values	2. Intervals of x where $F(x)$ has decreasing function values	3. Intervals of x where $F(x)$ has constant function values
4. Intervals of x where $G(x)$ has increasing function values	5. Intervals of x where $G(x)$ has decreasing function values	6. Intervals of x where $G(x)$ has constant function values
7. Domain of $F(x)$	8. Range of $F(x)$	9. Domain of $G(x)$
10. Range of $G(x)$	11. Intervals where $g(x) > f(x)$	12. Values of x where $f(x) = g(x)$
13. Intervals where $g(x) < f(x)$	14. Value(s) of x where $f(x) = 0$	15. Value(s) of x where $g(x) = 0$

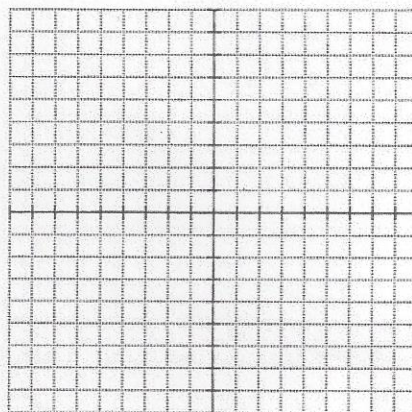
Pre-AP Calculus
Day #1 and #2 Homework

Write the transformations, in words, that exist in the equation of the function that cause the graph to be different from the basic function. Then, graph the function. (Calculator NOT Permitted)

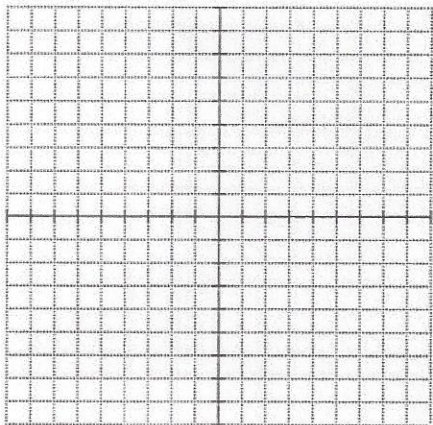
1. $f(x) = -(x-3)^2 + 5$



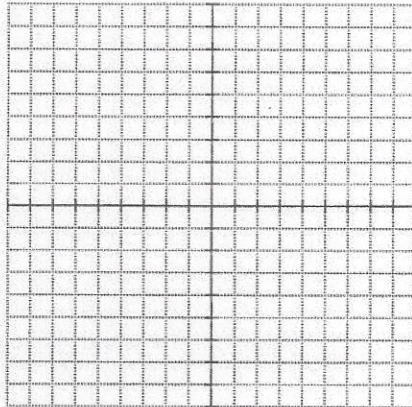
2. $f(x) = \sqrt{-x+2} + 3$



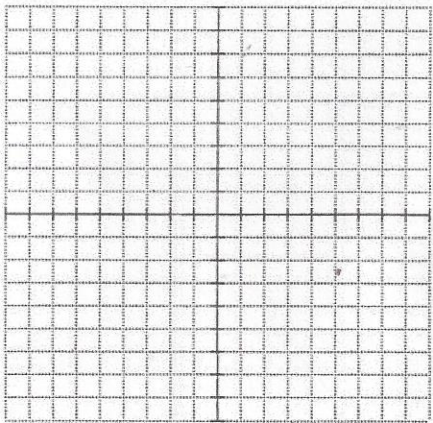
3. $f(x) = |x+3| - 2$



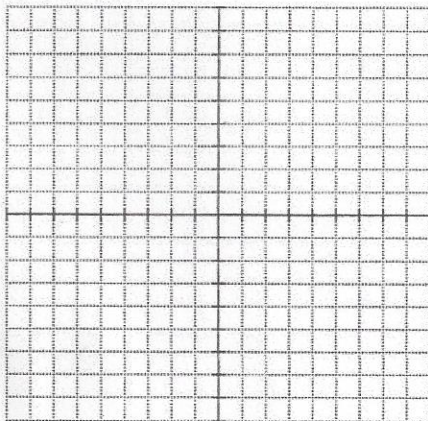
4. $f(x) = -\sqrt[3]{x-2} + 3$



5. $f(x) = \sqrt[3]{x+3} - 1$

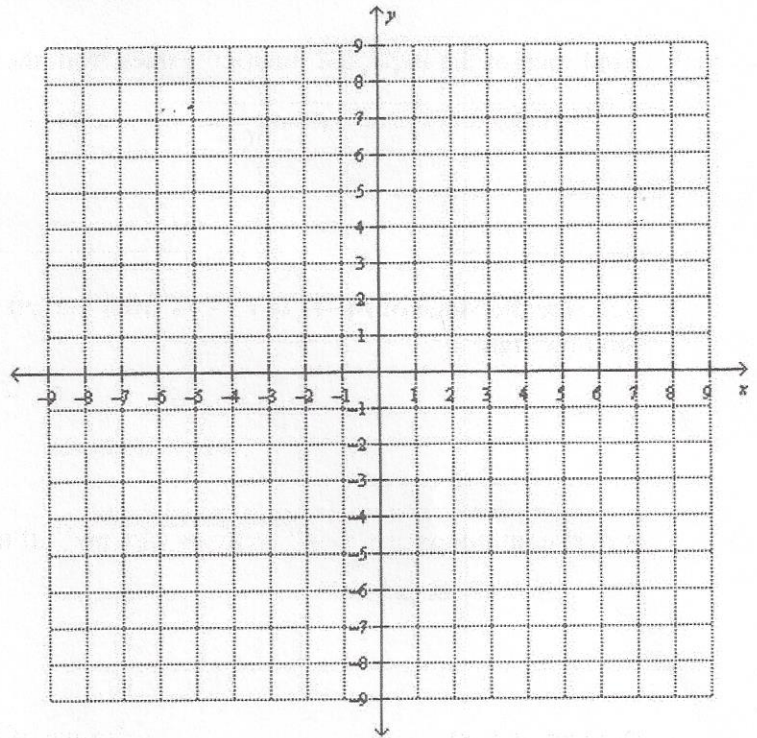


6. $f(x) = -|x-1| + 3$



For each of the piece-wise defined functions below, identify and classify any and all discontinuities that may exist in the graph. Justify your responses analytically and THEN verify your responses graphically.

$$10. G(x) = \begin{cases} -(x+4)^2 + 5, & -6 \leq x < -1 \\ |x-3| + 2, & -1 < x \leq 6 \end{cases}$$



$$11. H(x) = \begin{cases} |x+4| - 1, & x < -2 \\ (x+1)^2 - 8, & -2 < x \leq 3 \end{cases}$$

