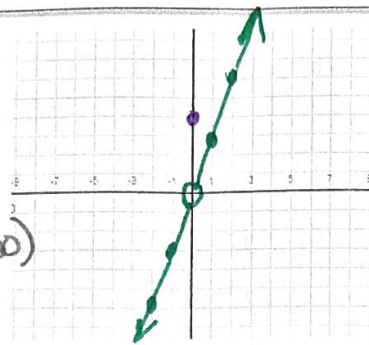


Graph the piecewise function.

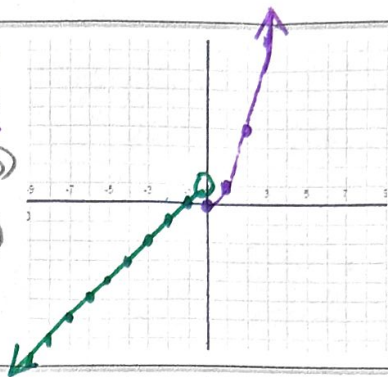
1) $f(x) = \begin{cases} 3x & \text{if } x \neq 0 \\ 4 & \text{if } x = 0 \end{cases}$

D: $(-\infty, \infty)$
R: $(-\infty, 0) \cup (0, \infty)$

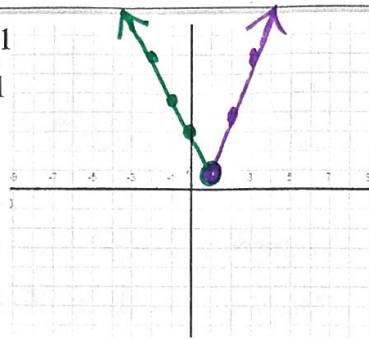


6) $f(x) = \begin{cases} 1+x & \text{if } x < 0 \\ x^2 & \text{if } x \geq 0 \end{cases}$

Domain: $(-\infty, \infty)$
Range: $(-\infty, \infty)$

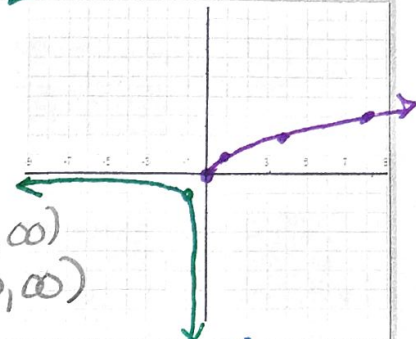


2) $f(x) = \begin{cases} -2x+3 & \text{if } x < 1 \\ 3x-2 & \text{if } x \geq 1 \end{cases}$

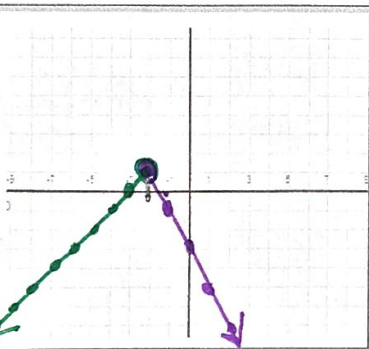


7) $f(x) = \begin{cases} \frac{1}{x} & \text{if } x < 0 \\ \sqrt{x} & \text{if } x \geq 0 \end{cases}$

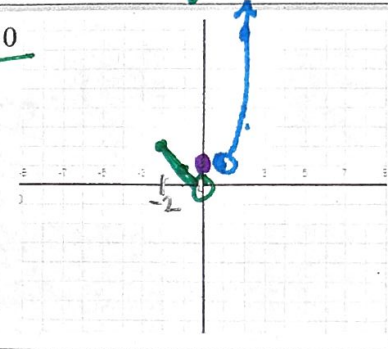
Domain: $(-\infty, \infty)$
Range: $(-\infty, \infty)$



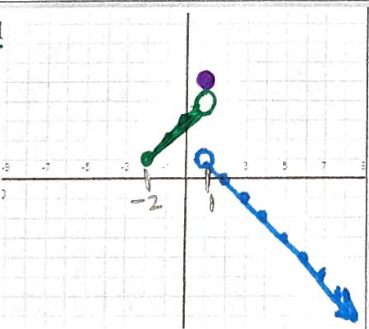
3) $f(x) = \begin{cases} x+3 & \text{if } x < -2 \\ -2x-3 & \text{if } x \geq -2 \end{cases}$



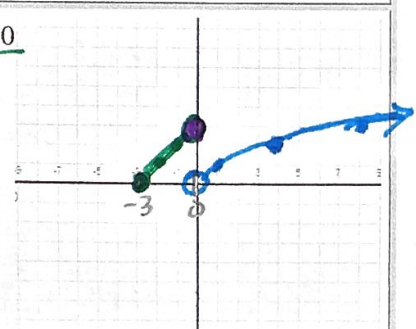
8) $f(x) = \begin{cases} |x| & \text{if } -2 \leq x < 0 \\ 1 & \text{if } x = 0 \\ x^3 & \text{if } x > 0 \end{cases}$



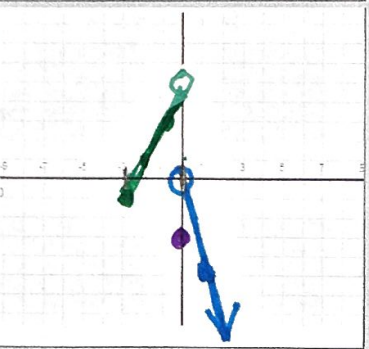
4) $f(x) = \begin{cases} x+3 & \text{if } -2 \leq x < 1 \\ 5 & \text{if } x = 1 \\ -x+2 & \text{if } x > 1 \end{cases}$



9) $f(x) = \begin{cases} 3+x & \text{if } -3 \leq x < 0 \\ 3 & \text{if } x = 0 \\ \sqrt{x} & \text{if } x > 0 \end{cases}$

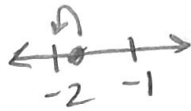


5) $f(x) = \begin{cases} 2x+5 & \text{if } -3 \leq x < 0 \\ -3 & \text{if } x = 0 \\ -5x & \text{if } x > 0 \end{cases}$



10. Given $f(x) = 2[x] - 3$

$2(-2) - 3$



a. Find $f(-1.8) = \underline{-7}$

b. Find $f(2.6) = \underline{1}$

c. Find $f(-0.4) = \underline{-5}$

11. Given $h(x) = \begin{cases} x & , x \leq 0 \\ \sqrt{x} - 2 & , x > 0 \end{cases}$

a. Find $h(1) = \underline{-1}$

b. Find $h(0) = \underline{0}$

c. Find $h(9) = \underline{1}$

12. Given $h(x) = \begin{cases} 5 & , x < -2 \\ |x| & , -2 \leq x \leq 2 \\ -3x - 2 & , x > 2 \end{cases}$

a. Find $h(3) = \underline{-11}$

b. Find $h(-1.4) = \underline{1.4}$

c. Find $h(-4) = \underline{5}$

13. Given $g(x) = \begin{cases} 2 & , x < -2 \\ x^2 & , -2 \leq x \leq 2 \\ -2x + 6 & , x > 2 \end{cases}$

a. Find $g(3) = \underline{0}$

b. Find $g(-2) = \underline{4}$

c. Find $g(-4) = \underline{2}$

14. Given $g(x) = \begin{cases} 0 & , x < 1 \\ 1 & \\ \frac{1}{x} & , x \geq 1 \end{cases}$

a. Find $g(0.5) = \underline{0}$

b. Find $g(1) = \underline{1}$

c. Find $g(-4) = \underline{0}$

15. Given $f(x) = \begin{cases} x & , x < -3 \\ x^4 & , -3 \leq x \leq 3 \\ -x & , x > 3 \end{cases}$

a. Find $f(3) = \underline{81}$

b. Find $f(-5) = \underline{-5}$

c. Find $f(4) = \underline{-4}$

$3^4 = 81$