Evaluate Piecewise Functions Homework

Evaluate f(x) when x = 0, x = 2, x = 4

1. $f(x) = \begin{cases} x-1, if \ x < 2 \\ -x+1, if \ x \geq 2 \end{cases}$

      f(0) = _____

      f(2) = _____

      f(4) = _____

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

      f(0) = _____

      f(2) = _____

      f(4) = _____

Evaluate f(x) when x = -2, x = 3, x = 5

3. $f(x) = \begin{cases} -2x+2, if \ x < 0 \\ x-5, if \ x \geq 0 \end{cases}$

      f(-2) = _____

      f(3) = _____

      f(5) = _____

4. $f(x) = \begin{cases} 3x-1, if \ x < -1 \\ -x+1, if \ x \geq -1 \end{cases}$

      f(-2) = _____

      f(3) = _____

      f(5) = _____

Evaluate f(x) when x = -3, x = -1, x = 3

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

      f(-3) = _____

      f(-1) = _____

      f(3) = _____

6. $g(x) = \begin{cases} |7-x^2| & \text{if } x \leq 2 \\ \dfrac{x+1}{2x-1} & \text{if } x > 2 \end{cases}$

      f(-3) = _____

      f(-1) = _____

      f(3) = _____

Evaluate f(x) when x = -4, x = 0, x = 6

7. $f(x) = \begin{cases} -\dfrac{1}{2}x-4 & \text{if } x < -1 \\ (x-2)^2 & \text{if } -1 \leq x < 3 \\ |x-5|-3 & \text{if } x \geq 3 \end{cases}$

      f(-3) = _____

      f(-1) = _____

      f(3) = _____

8. $f(x) = \begin{cases} x^3-1 & \text{if } x < -2 \\ 3x+5 & \text{if } x \geq -2 \end{cases}$

      f(-3) = _____

      f(-1) = _____

      f(3) = _____