Worksheet: Linear Quadratic Piecewise Functions

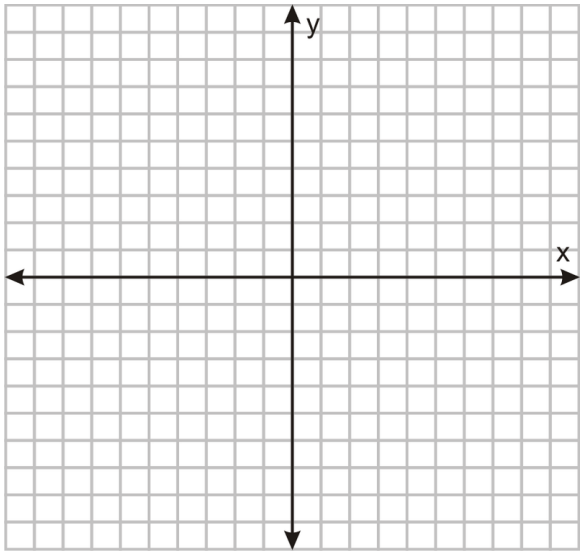
I. Evaluate the following for $f(x) = \begin{cases} 3x - 5 , & x > 4 \\ x^2 , & x \leq 4 \end{cases}$

1. f(7) =
2. f(4) =
3. f(-3) =

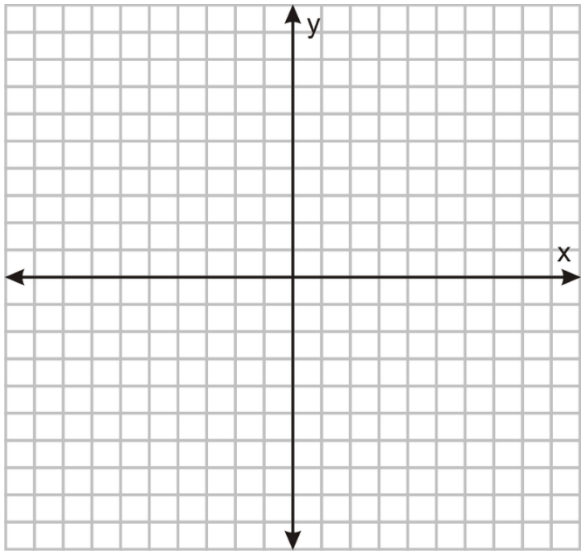
Evaluate the following for $f(x) = \begin{cases} x^2 - 4 , & x < 3 \\ \frac{2}{3}x - 5 , & x \geq 3 \end{cases}$

4. f(6) =
5. f(-3) =
6. f(3) =

II. Graph the following for $f(x) = \begin{cases} 3x - 5 , & x > 4 \\ x^2 , & x \leq 4 \end{cases}$



III. Graph the following for $f(x) = \begin{cases} x^2 - 4 , & x < 3 \\ \frac{2}{3}x - 5 , & x \geq 3 \end{cases}$



IV. Graph the following for $f(x) = \begin{cases} x^2 - 1 , & x \leq 0 \\ 2x - 1 , & 0 < x \leq 5 \\ 3 , & x > 5 \end{cases}$