

1. Your favorite dog groomer charges according to the following: if your dog weighs 15 pounds and under she will charge \$20; if your dog weighs between 15 pounds and 40 pounds she will charge \$35; if your dog weighs more than 40 pounds, she will charge \$45 and \$1.50 per pound over 40 pounds. You have two dogs to be groomed. How much will you be charged if you have a 22 pound dog and a 52 pound dog?

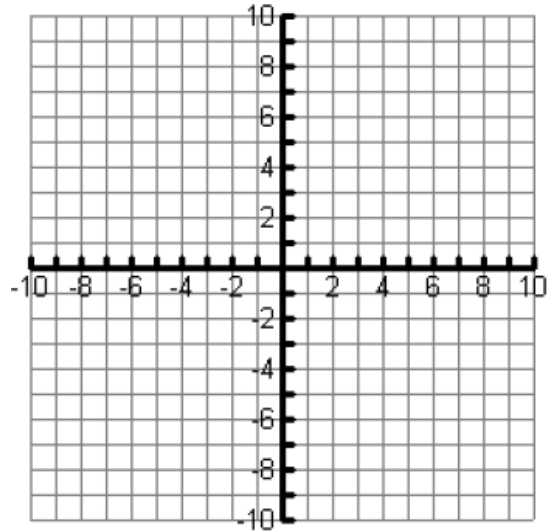
2. Evaluate the function $g(x)$ for the given

$$g(x) = \begin{cases} \frac{x}{3}, & \text{if } x \leq 0 \\ 2x - 6, & \text{if } 0 < x < 2 \\ 1, & \text{if } x \geq 2 \end{cases} \quad \text{values.}$$

- $g(1)$
- $g(2)$
- $g(0)$
- $g(3)$
- $g(-1)$

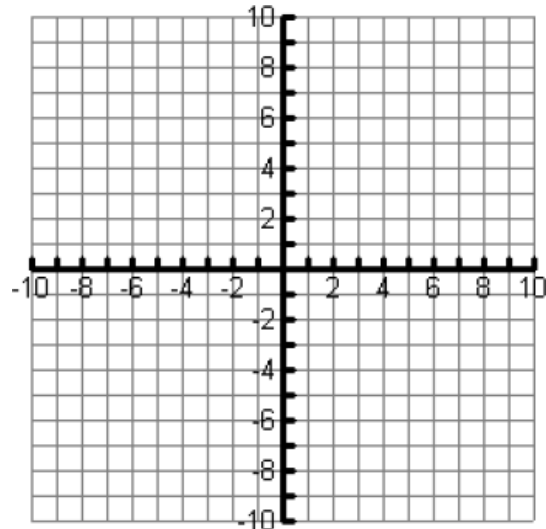
3. Graph.

$$g(x) = \begin{cases} -x + 2, & x < 2 \\ x - 2, & x \geq 2 \end{cases}$$



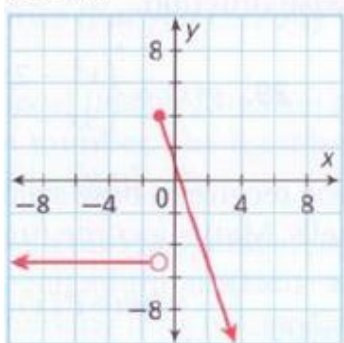
4. Graph.

$$f(x) = \begin{cases} x^2 + 2, & -3 \leq x \leq 0 \\ x + 3, & x > 0 \end{cases}$$



5. Write the equation of the function.

i. Graph



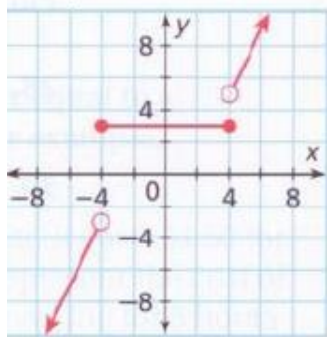
Equation of the pieces

Domain for the pieces

Piecewise Function

6. Write the equation of the function.

. Graph

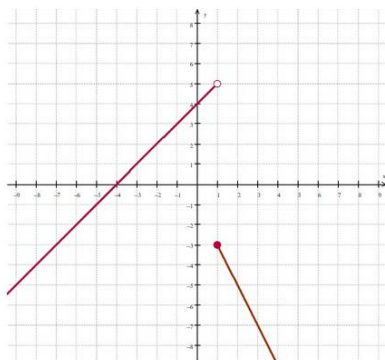


Equation of the pieces

Domain for the pieces

Piecewise Function

7. Write the equation of the function.



8. Use the information to **write an equation for the piecewise function and graph.**

Erin buys gas at a self service station for \$2.75 a gallon. The gas station has a promotion going on that anyone who buys more than 10 gallons of gas, only has to pay \$2.50 per gallon. Erin's tank will hold 12 gallons of gas.

