

Directions: Please answer the following questions. **Show work!!**  
Solve for x.

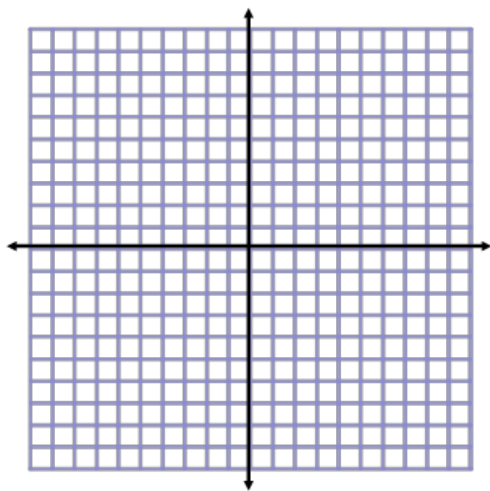
1.  $25x + 30x = 110$

2.  $\frac{100}{x} = 20$

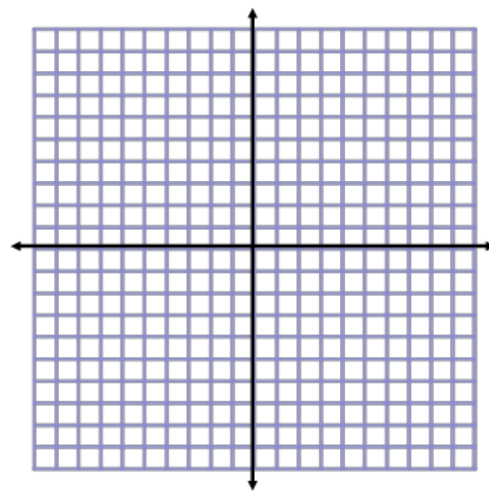
3.  $-2(3x - 10) = 56$

Graph the following.

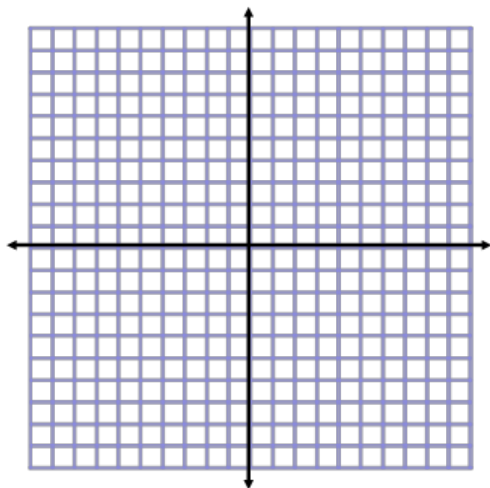
4.  $y = 2x + 3$



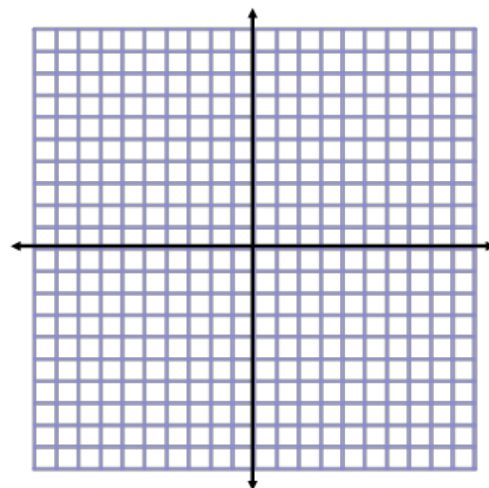
5.  $y = -4$



6.  $2x + 3y = 12$



7.  $x = 1$



8. Solve the system.

$$\begin{cases} 15x + 3y = 27 \\ 10x - 7y = -18 \end{cases}$$

Simplify using the properties of exponents.

9.  $\frac{100a^5b^2c^3}{2bc^9}$

10.  $(2x^4y^{12}z^{10})^{1/2}$

11.  $(10g^4h^2)^2 \cdot (4gh^7)^3$

12.  $5w^{1/2} \cdot 9w^{1/9}$