## Solving for a Variable Homework

1) Solve $C=2 \pi r$ for $r$.
2) $x-6 y=8$ for $x$
3) $4 x+8=2 y$ for $x$
4) $2 x+10 y=5$ for $x$
5) Solve $x+3 x-5=y-3$ for $y$
6) $-10=20 y+10 x$ for $y$
7) $\frac{y+2}{5}=3 x$ for $y$
8) $\frac{y}{5}+2=3 x$ fo

## Answer each of the following.

9) The formula $c=5 p+215$ relates $c$, the total cost in dollars of hosting a birthday party at a skating rink, to $p$, the number of people attending.
a. Solve the formula $c=5 p+215$ for $p$.
b. If Allie's parents are willing to spend $\$ 300$ for a party, how many people can attend?
10) The formula for the area of a triangle is $A=\frac{1}{2} b h$, where $b$ represents the length of the base and $h$ represents the height.
a. Solve the formula $A=\frac{1}{2} b h$ for $b$.
b. If a triangle has an area of $192 \mathrm{~mm}^{2}$, and the height measures 12 mm , what is the measure of the base?
