## Solve Equations

| Operation | Addition | Subtraction | Multiplication | Division | Exponent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inverse |  |  |  |  |  |
| $-13=x-8$ | $-3 x=6$ | $x^{2}=200$ |  |  |  |

$-18=6-2 x$
$3 x^{2}-5=70$

$-\frac{2}{x}=\frac{5}{2}$
$\frac{2 x}{3}=\frac{x}{2}-1$

## Rearrange Formulas

$T=2 \pi \sqrt{\frac{L}{g}} \quad$ solve for $g$

## Word Problems - set up only

Jill sold half of her comic books and then bought sixteen more. She now has 36 . With how many did she begin?

A vending machine contained $\$ 13$ in dimes and quarters. There were 70 coins. How many dimes were there?

John bought a new TV. The total cost included a delivery charge of \$120, plus taxes of $13 \%$ of the total. If the total ended up being $\$ 537.77$, how much did the TV cost without tax or delivery?

Ted and Ben are swimming laps in a pool of 50 m length. They start at opposite ends of the pool at the same time. Ted swims $10 \mathrm{~m} / \mathrm{min}$ faster than Ben does. After 2 min they swim past each other, how fast is each person swimming?

