6) Daneya spends half as many hours doing homework as her older brother, Dejon. If Dejon spends 4 hours doing homework, write an equation and solve for the number of hours, x, that Daneya does homework.

Equation: _____ Solution: _____

Work:

Solve each equation. Show all steps. Include a "check".

7) $m + 25 = 39$

8) $12x = 138$

9) $z - 29 = 8$

10) $\frac{y}{7} = 21$

11) $x + \frac{1}{4} = 3\frac{1}{2}$

12) $m - 2.8 = 5.2$

13) $3.5x = 70$

14) $\frac{m}{2} = 7.2$

15) Create your own word problem. Write an equation and show all the work to solve.

Equations & Parts of Equations

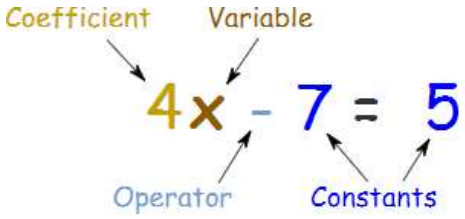
An _____ is a mathematical sentence containing an equal sign that shows two equivalent values.

$$x + 2 = 6$$

The equation says: **what is on the left (x + 2) is equal to what is on the right (6)**

So an equation is like a **statement** "*this* equals *that*".

Here we have an equation that says 4x − 7 equals 5, and all its parts:



A **Variable** is a symbol for a number we don't know yet. It is usually a letter like x or y.

A number on its own is called a **Constant**.

A **Coefficient** is a number used to multiply a variable (**4x** means **4** times **x**, so **4** is a coefficient)

An **Operator** is a symbol that shows an operation, ex: +, -, x, ÷.

Variables on their own (without a number next to them) actually have a coefficient of 1 (**x** is really the same as **1x**)