Math 8 Name_____
Date_____

6.3C Two-Step Equation Problems

For every word problem you must include:

1) Let statement – what does your variable represent
2) An equation to represent the situation
3) solving steps
4) solution with proper units

Ex. Determine the solution to each problem by writing and solving an equation that models the situation.

Five less than triple a number is ten. What is the number?

Let y = the number

$3y - 5 = 10$

$+5 \quad +5$

$\frac{3y}{3} = \frac{15}{3}$

$y = 5$

The number is 5.

A cow sleeps 7 h a day. This amount of sleep is 1 h less than twice the amount an elephant sleeps a day. How long does an elephant sleep?

Let e = hours slept by elephant

cow sleep = Twice elephant sleep − 1

$7 = 2e - 1$

$+1 \quad +1$

$\frac{8}{2} = \frac{2e}{2}$

$4 = e$

Elephant sleeps 4 hours

Cali borrowed $19 from her brother. The next day, she paid back $3. To pay off the rest of the debt, she will give him $4/week. How many weeks will it take her to pay off the debt?

Let w = # of weeks to repay

amount paid back = amount borrowed

$4w + 3 = 19$

$-3 \quad -3$

$\frac{4w}{4} = \frac{16}{4}$

$w = 4$

It takes 4 weeks

During a hockey season Mary had a total of 41 more than ½ the number of shots on goal as her teammate John. If Mary had 173 shots on goal, how many shots did John have?

Let j = # of John's shots

$\frac{j}{2} + 41 = 173$

$-41 \quad -41$

$2 \cdot \frac{j}{2} = 132 \cdot 2$

$j = 264$

John had 264 shots