

Number Problems:

1) If a certain number is decreased by 9, the result is 24. What is the number?

Let $X = \text{the \#}$

$$\begin{array}{r} X - 9 = 24 \\ + 9 \qquad \qquad 9 \\ \hline X = 33 = \text{the \#} \end{array}$$

2) Twice the sum of a number and 4 is equal to 22. What is the number?

Let $X = \text{the \#}$

$$\begin{array}{r} 2(n+4) = 22 \\ 2n + 8 = 22 \\ -8 \qquad -8 \\ \hline 2n = 14 \end{array}$$

$$\begin{array}{r} 2n = 14 \\ \frac{2n}{2} = \frac{14}{2} \\ n = 7 = \text{the \#} \end{array}$$

3) If 4 more than twice a number is 18, find the number.

Let $n = \text{the \#}$

$$\begin{array}{r} 4 + 2n = 18 \\ -4 \qquad \qquad -4 \\ \hline 2n = 14 \\ \frac{2n}{2} = \frac{14}{2} = 7 = \text{the \#} \end{array}$$

4) If three times a certain number is increased by 4, the result is 19. what is the number?

Let $n = \text{the \#}$

$$\begin{array}{r} 3n + 4 = 19 \\ -4 \quad -4 \\ \hline 3n = 15 \\ \frac{3n}{3} = \frac{15}{3} = 5 \text{ the \#} \end{array}$$

5) If 3 times a number is decreased by 5, the result is 7. Find the number.

The # is 4

$$\begin{array}{r} 3n - 5 = 7 \\ +5 \quad +5 \\ \hline 3n = 12 \\ \frac{3n}{3} = \frac{12}{3} \end{array}$$

6) The sum of two numbers is 240. The larger number is 6 less than twice the smaller. Find the numbers.

Let $n = \text{the small \#}$
 $240 - n = \text{the large \#}$

$$\begin{array}{r} 6 + 240 - n = 2n \\ 246 - n = 2n \\ +n \quad +n \\ \hline 246 = 3n \\ \frac{246}{3} = \frac{3n}{3} = 82 \end{array}$$

$n = 240 - n$ $\text{Small} = 82$
 $\text{LARGE} = 158$

7) If the sum of a number and 4 is multiplied by two, the result is 28. What is the number?

Let $n = \text{the \#}$

$$\begin{array}{l} 2(n + 4) = 28 \\ 2n + 8 = 28 \\ 2n = 20 \\ n = 10 \end{array}$$