

U3D8_T Number Story Questions

Sunday, March 4, 2018 8:14 PM



U3D8_T
Number S...

U3D8

"Number" Story Questions

Example 1: Write an equation using only one variable to represent each sentence. Write a let statement to represent the variable chosen. DO NOT SOLVE.

a) $2n + 12 = 20$
✓ $2n + 12 = 20$
✓ Let n represent the number

b) Susan is 8 years older than her brother, Tim. The sum of their ages is 82.

Let T represent Tim's age in years.
Let $T+8$ represent Susan's age (years)

$$T + (T+8) = 82$$

c) Find two consecutive odd numbers whose sum is 300.

Let $x, x+2$ represent the numbers

$$x + (x+2) = 300$$

$$\begin{array}{c} +2 \\ \curvearrowright \\ 5, 7 \end{array}$$

6, 8, 10
+2
+4

d) Find three consecutive even numbers whose sum is -66

Let $n, n+2, n+4$ represent the numbers.

$$n + (n+2) + (n+4) = -66$$

e) Jackie, Ainsley, and Steph play together on a line on W-O's girls hockey team. At the end of the season, Ainsley had scored 10 more goals than Jackie and Steph scored 3 times as many goals as Jackie. The three girls scored a total of 55 goals. How many goals did each girl score?

Let J represent how many goals Jackie scored.

Let $J+10, 3J$ represent the number of goals Ainsley and Steph scored.

$$J + (J+10) + (3J) = 55$$

f) Donna is 4 years older than her sister, Jennifer. Five years from now the sum of their ages will be 30. How old are the sisters now?

In
5 yrs
 $J+5$
 $J+4+5$
 $= J+9$

Let J years represent Jennifer's age.
Let $J+4$ " " " Donna's "

$$(J+5) + (J+9) = 30$$

g) The sum of two numbers is 14. Seven times one number minus 3 times the other number is 58. Find the numbers. SOLVE this one.

Let n , $14-n$ represent the numbers.

$$7n - 3(14-n) = 58$$

$$7n - 42 + 3n = 58$$

$$10n - 42 + 42 = 58 + 42$$

$$\frac{10n}{10} = \frac{100}{10}$$

$$n = 10$$

from let statement,
second number is

$$\begin{aligned} 14 - n \\ = 14 - 10 \\ = 4 \end{aligned}$$

∴ the two numbers are 10 and 4.

U3D8 Practice: Pages 226-227 #1 – 11. Extra Practice: Worksheet 3.4