

Translate each sentence into an equation.

- 1) The sum of five times a number,  $x$ , and three is the same as 15.

$$5x + 3 = 15$$

- 2) One-half of  $m$  cubed is the same as four times  $m$  minus nine.

$$\frac{1}{2} m^3 = 4m - 9$$

Translate each equation into a sentence.

- 3)  $h^2 - 5h + 6 = 0$   $h$  squared minus five times  $h$  plus six is zero

- 4)  $\frac{2}{3} w^2 + \frac{2}{3} w - \frac{1}{5} = 2$  two thirds  $w$  squared plus two-thirds times  $w$  minus one fifth is 2

Solve each equation. Check your solution!!!

- 5)  $x - 9 = 4$

$$\textcircled{13}$$

- 6)  $-6 + g = -11$

$$\textcircled{-5}$$

- 7)  $\frac{5}{9} + w = \frac{7}{9}$

$$\frac{2}{9}$$

- 8)  $\frac{2}{5} b = -4$

$$-10$$

- 9)  $2d - 4 = 8$

$$\frac{6}{2}$$

- 10)  $-9 = 3t + 6$

$$-5$$

- 11)  $\frac{t}{3} - 9.2 = 3.5$

$$38.1$$

- 12)  $21 + 3j = 9 - 3j$  ~~2~~ Typo

$$-2$$

- 13)  $3(p + 4) = 33$  7

14)  $4(3w - 2) = 8(2w + 3)$

-8

15)  $\frac{x-3}{4} = \frac{x}{2}$

-3

Write an equation and solve each of the following:

16) Find three consecutive ODD integers with a sum of 63. 19, 21, 23

17) Find three consecutive integers with a sum of -39. -12, -13, -14

18) Find the sum of three consecutive odd integers if the sum of the first two integers is equal to twenty-four less than four times the third integer. 21

19) Eight more than half a number is negative two.

$$\frac{n}{2} + 8 = -2$$

$$\frac{n}{2} = -10$$

$$n = -20$$

20) The sum of three consecutive integers is equal to 9 less than 4 times the least of the integers. Find the three integers.

$$n + n + 1 + n + 2 = 4n - 9$$

$$3n + 3 = 4n - 9$$

$$3 = n - 9$$

$$9 \quad +9$$

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$$n = 12$$

12, 13, 14