

Equation Solving Practice

1. Solve each of the following equations:

a) $3x + 4 = 25$

b) $5 - 2n = -15$

c) $6a - 3a + 5 = 14$

d) $5x^2 = 4x^2 + 4$

e) $4(2x - 2) = -16$

f) $3(n - 2) - 19 = 5 + 2(n + 5)$

g) $3(4k - 1) - (6k - 10) = 7k$

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

i) $\frac{3a}{4} - \frac{2a}{3} = \frac{5}{6} + a$

j) $\frac{d-2}{4} = \frac{d+1}{3}$

k) $\frac{1}{3}(x+4) = \frac{1}{5}(x+2)$

l) $\frac{2x+1}{4} - \frac{3}{5} = \frac{4x+7}{2}$

m) $\frac{2}{5}(x+4) + \frac{3}{2}(x+2) = -3$

2. Susan's age is shown by the expression $4(3n - 5)$. David's age is shown by the expression $13(10 - n)$. Determine the value of n if Susan and David are the same age.

3. Determine the value of A in each of the following equations if the solution to each of the equations is $x = 4$.

a) $2x + A = 15$

b) $5(3x - A) = 2x + 7$

c) $Ax + 5 - 2x - 7 = 14$

ANSWERS

1a] $x = 7$ 1b] $n = 10$ 1c] $a = 3$ 1d] $x = 2$ 1e] $x = -1$ 1f] $n = 40$ 1g] $k = 7$ 1h] $x = -4$ 1i] $a = \frac{-10}{11}$ 1j] $d = -10$

1k] $x = -7$ 1l] $x = \frac{-77}{30}$ 1m] $x = -4$ 2] $n = 6$ 3a] $A = 7$ 3b] $A = 9$ 3c] $A = 8$