

WP-2 Notes

Tuesday, 20 October 2026 22:18

Solve.

- 1) A sculpture is 14 years older than a painting by the same artist. The sculpture is also three times as old as the painting. How old is each?

$x = \text{age of painting}$

$$x + 14 = 3x \quad \frac{2x}{2} = 14 \quad x = 7 \text{ year old painting}$$

21 year old sculpture

- 2) Two numbers differ by 38. Their sum is 146. Find the numbers.

$$x + 38$$

(54 and 92)

$$x + (x + 38) = 146$$

$$2x + 38 = 146$$

$$\frac{2x}{2} = \frac{108}{2}$$

$$x = 54$$

$$x + y = 146$$

$$y = x + 38$$

$$54 + (54 + 38) = 146$$

$$x + (x + 38) = 146$$

$$92 + 54 = 146$$

- 3) The height of a flagpole is three fifths the height of a building. The difference in their heights is 8 meters. What is the height of the building?

$x = \text{height of building}$

height of flagpole

$$x - \frac{3}{5}x = 8$$

$$20 \cdot \frac{3}{5} \quad \frac{60}{5} = 12$$

$$\frac{5}{2} \cdot \frac{2}{5}x = 8 \cdot \frac{5}{2}$$

$$x = \frac{40}{2}$$

$$x = 20$$

20 meters building

12 meters flagpole