

3. An average of 550 mm of rain falls on Vancouver in a year. This amount is 20 mm less than three times the annual amount in Edmonton. What is the annual average in Edmonton?

x - annual ave in Edmonton

Vancouver
~~This~~ amount is subtract 20
20 mm less than $3 \times x$
 3 times Edmonton

$$550 = 3x - 20$$

$$\begin{array}{r} 550 = 3x - 20 \\ +20 \quad \quad +20 \end{array}$$

$$\frac{570}{3} = \frac{3x}{3}$$

$$190 \text{ mm} = x$$

The annual ave in Edmonton is 190 mm

4. The temperature in Edmonton was 10°C and is dropping $2^\circ\text{C}/\text{h}$. How many hours did it take to reach -4°C ?

x - # of hours.

$$2^\circ\text{C}/\text{h} - (2^\circ\text{C})(x) = 2x$$

$$10^\circ\text{C} \begin{array}{l} \text{dropping} \\ \downarrow \end{array} - 2x = -4$$

$$\begin{array}{r} 10 \\ -10 \end{array} - 2x = \begin{array}{r} -4 \\ -10 \end{array} \quad \text{Watch - sign!}$$

$$\begin{array}{r} +2x \\ -2 \end{array} = \begin{array}{r} -14 \\ -2 \end{array}$$

$$x = 7 \text{ hrs.}$$

It takes 7 hours to reach -4°C .

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