

You have already been jogging for one hour. Assume that you jog 5 miles per hour and you are 4 miles from home. How many minutes did you jog that day? In the following equation, x represents the number of hours it took you to get home after the first hour.

$$5 = \frac{9}{x+1}$$

You have already been jogging for one hour. Assume that you jog 5 miles per hour and you are 4 miles from home. How many minutes did you jog that day? In the following equation, x represents the number of hours it took you to get home after the first hour.

$$(x+1)5 = \frac{9}{x+1}$$

$$5(x+1) = 9$$

$$5x + 5 = 9$$

$$5x = 4$$

$$x = \frac{4}{5}$$

$$12: \frac{60 \cdot 4}{1 \cdot 5 \cdot 1} = 12 \cdot 4 = 48 \text{ minutes}$$

$$60 + 48 = \boxed{108 \text{ minutes}}$$