Word Problems

3. Solve the following word problems:

a) DISTANCE Problem: Ed is a runner and he runs a 8 km loop every day. The first 4 km, he runs at 12km/hr. He runs much slower on the way home. If it takes him 1 hour in total to run the loop, how fast is he running for the last 4 km?

b) WORK Problem: It takes Louise 2 hours to paint a room and it takes Pete 8 hours to paint the same room. How long does it take them if they paint the room together?

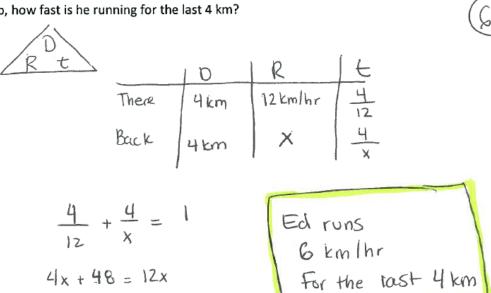
c) The sum of a number and it's reciprocal is $\frac{10}{3}$, what is the number?

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Answers

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b) WORK Problem: It takes Louise 2 hours to paint a room and it takes Pete 8 hours to paint the same room. How long does it take them if they paint the room together?

$$\frac{1}{2} + \frac{1}{8} = \frac{1}{x}$$

$$4x + x = 8$$

$$5x = 8$$

$$x = \frac{8}{5} \text{ hrs}$$

$$1 + \frac{1}{8} = \frac{1}{x}$$

$$2 + \frac{1}{8} = \frac{1}{x}$$

$$4x + x = 8$$

$$5x = 8$$

$$4x + x = 8$$

$$5x = 8$$

$$4x + x = 8$$

$$5x = 8$$

$$5x = 8$$

$$4x + x = 8$$

$$5x = 8$$

$$5x = 8$$

$$5x = 8$$

$$6x = 8$$

c) The sum of a number and it's reciprocal is $\frac{10}{3}$, what is the number? $\left[\begin{array}{c} X + \frac{1}{X} = \frac{10}{3} \end{array} \right] \times {}^{3} \times$