

Last topic from chapter 6

Time to start applying some of our number sense from Chapter 6. We are going to use rational equations to help us solve distance, rate, and time problems.

You must know:

$$\text{rate} = \frac{\text{distance}}{\text{time}} \quad \text{so} \quad \text{time} = \frac{\text{distance}}{\text{rate}} \quad \text{so} \quad \text{distance} = (\text{rate})(\text{time})$$

Ex.1

Erin and Andrea set off at the same time on a 30-km walk for charity. Erin, who has trained all year for this event, walks 1 km/h faster than Andrea. Erin finishes the walk 1 h ahead of Andrea. How fast was each sister walking, and how long did it take for each sister to finish the walk?

Would something like this chart help organize things?

	Distance (km)	Rate (km/h)	Time (h)

Ex.2

Jerome rows his boat 24 km downstream and back to where he began. When the average speed of the current is 2 km/h, Jerome can complete the journey in 9 h. What is Jerome's average rowing speed in still water?

	Distance (km)	Rate (km/h)	Time (h)

Practice Problems...

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