

Rational Equation Modeling (1.18)

Modeling Rational Equations: Setup an equation and solve.

1) Brian can eat a box of popcorn in 10 minutes. Maria can eat a box of popcorn in 13 minutes. They go to the movies and share a box. How long will it take them to finish it?

2) A cyclist travels 20 miles per hour faster than a person walking. The cyclist traveled 25 miles in the time it took the other person to walk 5 miles. Find their speeds.

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3) When it was raining, Elliott drove for 120 miles. When the rain stopped, he drove 20 mph faster than he did while it was raining. He drove for 300 miles after the rain stopped. If Elliott drove for a total of 10 hours, how fast did he drive while it was raining?

4) A couple decides to start their own company, and they need an estimated \$1,000,000. How many investors do they need to reduce the cost of their individual contribution by half? Assume each investor invests the same amount.