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*I can **solve unit rates** with **complex fractions.***

Simplify complex fractions by dividing the top fraction by the bottom fraction.

Remember to keep, change, flip.

1. $\dfrac{\frac{2}{7}}{\frac{5}{9}}$ $\quad \frac{2}{7} \cdot \frac{9}{5}$

2. $\dfrac{\frac{3}{4}}{\frac{1}{2}}$ $\quad \frac{3}{4} \cdot \frac{2}{1}$

Word Problems:

1. David hikes 2 ¼ miles in ½ an hour. What is his rate in miles per hour?

$\dfrac{2\frac{1}{4} \text{ mi}}{\frac{1}{2} \text{ hr}} = 4.5 \dfrac{\text{mi}}{\text{hr}}$

2. A turtle walks $\frac{7}{8}$ of a mile in $\frac{5}{6}$ of an hour. What is the unit rate expressed in miles per hour?

$\dfrac{\frac{7}{8} \text{ mi}}{\frac{5}{6} \text{ hr}} = 1.05 \dfrac{\text{mi}}{\text{hr}}$

3. Tom jogged from 10:30 a.m. to 12:15 p.m. He traveled a distance of 7 miles. What was his average speed in mph?

$\dfrac{7 \text{ mi}}{1\frac{3}{4} \text{ hr}} = 4 \text{ mph}$

4. John took a $3\frac{1}{8}$ mile walk to his friend's house. He left at 11 a.m. and arrived at his friend's house at 1:30 p.m. What was his average speed of walking in miles per hour?

$\dfrac{3\frac{1}{8} \text{ mi}}{2\frac{1}{2} \text{ hr}} = 1.25 \text{ mph}$

PARCC Examples:

1. Rosy waxes $\frac{2}{3}$ of her car with $\frac{1}{4}$ bottle of car wax.

   At this rate, what fraction of the bottle of car wax will Rosy use to wax her entire car?

$\dfrac{\frac{1}{4} \text{ bottle}}{\frac{2}{3} \text{ car}} = \frac{3}{8} \text{ bottle}$

2. A train traveled $\frac{1}{5}$ of the distance between two cities in $\frac{3}{4}$ of an hour.

   At this rate, what fraction of the distance between the two cities can the train travel in one hour?

$\dfrac{\frac{1}{5}}{\frac{3}{4} \text{ hr}} = \frac{4}{15} \text{ of the distance}$