

8th Grade Lesson 83

- I can solve rate problems as proportion problems.

$$\begin{array}{l}
 \frac{7 \text{ apples}}{\$2} \qquad \frac{\$2}{7 \text{ apples}} \\
 \frac{\cancel{10}^5}{1} \cdot \frac{7 \text{ apples}}{\cancel{2}_1} = 35 \text{ apples} \\
 \frac{A}{D} = \frac{A}{D} \qquad \frac{7}{2} = \frac{A}{10} \qquad \frac{2A}{2} = \frac{7 \cdot 10}{2} \\
 \qquad \qquad \qquad \qquad \qquad \qquad \frac{2A}{2} = \frac{70}{2} \\
 \qquad \qquad \qquad \qquad \qquad \qquad A = 35
 \end{array}$$

Fourteen bags could be filled in three hours. How many hours would it take to fill eighty-four bags? Work this problem two ways -- once as a rate problem and once as a proportion problem.

$$\frac{14 \text{ bags}}{3 \text{ hr.}} \quad \frac{3 \text{ hr.}}{14 \text{ bags}}$$

$$\frac{B}{H} = \frac{B}{H}$$

$$\overset{6}{84} \text{ bags} \cdot \frac{3 \text{ hrs}}{14 \text{ bags}} = 18 \text{ hr.}$$

$$\frac{14}{3} = \frac{84}{H}$$

$$14H = 3 \cdot 84$$

$$\frac{14H}{14} = \frac{252}{14}$$

$$H = 18$$

Assignment:

Problem Set 83

*A/B Optional: #1-9, 12-17,
19-20, 28-30