

E: Dividing Fractions and Mixed Numbers Continued

Examples

1. It takes $\frac{1}{2}$ h to clean a classroom. How many classes are cleaned in 3h?

$$3h \div \frac{1}{2}$$

$$= 3 \div \frac{1}{2}$$

$$= \frac{3}{1} \times \frac{2}{1}$$

$$= \frac{6}{1}$$

$$= 6 \text{ classes}$$

2. A truck uses about $2\frac{3}{4}$ times as much fuel as a car. What fraction of fuel used by the ~~car~~ truck does the car use?

$$\text{truck} = 2\frac{3}{4} \times \text{car}$$

$$\therefore \text{car} = \text{truck} \div 2\frac{3}{4}$$

$$= 1 \div 2\frac{3}{4}$$

$$= 1 \div \frac{11}{4}$$

$$= 1 \times \frac{4}{11}$$

$$= \frac{4}{11}$$

The car uses $\frac{4}{11}$ the amount of fuel as the truck.

3. In Canada, about $\frac{7}{12}$ of the land is in the NWT, the Yukon and about $\frac{1}{6}$ is in Alberta. How many times as big as Alberta is the NWT/Yukon?

$$= \frac{7}{12} \div \frac{1}{6}$$

$$= \frac{7}{12} \times \frac{6}{1}$$

$$= \frac{7}{2}$$

$$= 3\frac{1}{2} \text{ times as big}$$

$$R = \frac{1}{30} E$$

$$\frac{1}{3} C = \frac{1}{30} E$$

$$\frac{5}{3} = \frac{1}{30}$$

$$\frac{5}{3} \times \frac{30}{1} = 50$$

$$\frac{1}{30} = \frac{5}{3}$$

$$\frac{1}{30} \times \frac{3}{5}$$

$$= \frac{1}{50}$$

4. Sam makes $\frac{1}{15}$ of ~~the~~ a company's profit. Sam's pay is $\frac{3}{4}$ times as much as Mark's. What fraction of the company's profit does Mark make?

$$\frac{1}{15} \div \frac{3}{4}$$

$$= \frac{1}{15} \times \frac{4}{3}$$

$$= \frac{4}{45}$$

$$= \frac{4}{105}$$

Assignment: Pg. 228 # 11 - 17, 19, 20