Fraction of a Set Worksheets

4. Solve each problem in two different ways as modeled in the example.

Example: $6 \times \frac{2}{3} = \frac{6 \times 2}{3} = \frac{3 \times 2 \times 2}{3} = \frac{3 \times 4}{3} = 4$ $\qquad$ $6 \times \frac{2}{3} = \frac{\overset{2}{\cancel{6}} \times 2}{\underset{1}{\cancel{3}}} = 4$

a. $14 \times \frac{3}{7}$ $\qquad\qquad\qquad\qquad\qquad$ $14 \times \frac{3}{7}$

b. $\frac{3}{4} \times 36$ $\qquad\qquad\qquad\qquad\qquad$ $\frac{3}{4} \times 36$

c. $30 \times \frac{13}{10}$ $\qquad\qquad\qquad\qquad\qquad$ $30 \times \frac{13}{10}$

d. $\frac{9}{8} \times 32$ $\qquad\qquad\qquad\qquad\qquad$ $\frac{9}{8} \times 32$

5. Solve each problem any way you choose.

a. $\frac{1}{2} \times 60$ $\qquad\qquad\qquad\qquad$ $\frac{1}{2}$ minute = _____ seconds

b. $\frac{3}{4} \times 60$ $\qquad\qquad\qquad\qquad$ $\frac{3}{4}$ hour = _____ minutes

c. $\frac{3}{10} \times 1,000$ $\qquad\qquad\qquad\qquad$ $\frac{3}{10}$ kilogram = _____ grams

d. $\frac{4}{5} \times 100$ $\qquad\qquad\qquad\qquad$ $\frac{4}{5}$ meter = _____ centimeters

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4. Solve each problem in two different ways as modeled in the example.

Example: $6 \times \frac{2}{3} = \frac{6 \times 2}{3} = \frac{3 \times 2 \times 2}{3} = \frac{3 \times 4}{3} = 4$ · $6 \times \frac{2}{3} = \frac{4 \times 2}{\cancel{3}_1} = 4$

a. $14 \times \frac{3}{7}$

$= \frac{14 \times 3}{7} = \frac{7 \times 2 \times 3}{7} = \frac{7 \times 6}{7} = 6$ · $14 \times \frac{3}{7}$ $= \frac{\cancel{14}^2 \times 3}{\cancel{7}} = \frac{2 \times 3}{1} = 6$

b. $\frac{3}{4} \times 36$

$= \frac{3 \times 36}{4} = \frac{3 \times 4 \times 9}{4} = \frac{4 \times 27}{4} = 27$ · $\frac{3}{4} \times 36$ $= \frac{3 \times \cancel{36}^9}{\cancel{4}} = \frac{3 \times 9}{1} = 27$

c. $30 \times \frac{13}{10}$

$= \frac{30 \times 13}{10} = \frac{10 \times 3 \times 13}{10} = \frac{10 \times 39}{10} = 39$ · $30 \times \frac{13}{10}$ $= \frac{^3\cancel{30} \times 13}{\cancel{10}} = \frac{3 \times 13}{1} = 39$

d. $\frac{9}{8} \times 32$

$= \frac{9 \times 32}{8} = \frac{9 \times 4 \times 8}{8} = \frac{36 \times 8}{8} = 36$ · $\frac{9}{8} \times 32$ $= \frac{9 \times \cancel{32}^4}{\cancel{8}} = \frac{9 \times 4}{1} = 36$

5. Solve each problem any way you choose.

a. $\frac{1}{2} \times 60$

$= \frac{1 \times \cancel{60}^{30}}{\cancel{2}} = \frac{1 \times 30}{1} = 30$ · $\frac{1}{2}$ minute = __30__ seconds

b. $\frac{3}{4} \times 60$

$= \frac{3 \times \cancel{60}^{15}}{\cancel{4}} = \frac{3 \times 15}{1} = 45$ · $\frac{3}{4}$ hour = __45__ minutes

c. $\frac{3}{10} \times 1000$

$= \frac{3 \times \cancel{1000}^{100}}{\cancel{10}} = \frac{3 \times 100}{1} = 300$ · $\frac{3}{10}$ kilogram = __300__ grams

d. $\frac{4}{5} \times 100$

$= \frac{4 \times \cancel{100}^{20}}{\cancel{5}} = \frac{4 \times 20}{1} = 80$ · $\frac{4}{5}$ meter = __80__ centimeters

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