

NAME _____

Module 6 Computational Fluency of Fractions
Lesson 5 Multiplying Fractions

Guided
Practice
6.5

Set 1

1

One-sixth of the animals in the zoo walk on four legs. Two-fifths of these four-legged animals are tigers. What fraction of animals at the zoo are tigers?

$$\frac{1}{6} \times \frac{2}{5} = \frac{1 \times 2}{6 \times 5} = \frac{2}{30} = \frac{1 \times \cancel{2}^1}{15 \times \cancel{2}_1} = \frac{1}{15}$$

$\frac{1}{15}$ of the animals are tigers.

2

Two-fifths of the students participating in the talent show have a partner. If there are fifteen students in the show, how many students have a partner?

$$\frac{2}{5} \times 15 = \frac{2}{5} \times \frac{15}{1} = \frac{30}{5} = \frac{6}{1} = 6$$

Six students have a partner.

3

Seven-ninths of the books in the school library are fiction. Twelve-fifteenths of these fiction books are mystery novels. What fraction of the books in the school library are mystery novels?

$$\frac{7}{9} \times \frac{12}{15} = \frac{84}{135} = \frac{28 \times \cancel{3}^1}{45 \times \cancel{3}_1} = \frac{28}{45}$$

$\frac{28}{45}$ of the books are mystery novels.

Set 2

1

Fifteen-sixteenths of the members at Friendly Pool are adults. Four-ninths of these adults have children. What fraction of the members at Friendly Pool has children?

$$\frac{15}{16} \times \frac{4}{9} = \frac{\cancel{15}^5}{\cancel{16}_4} \times \frac{\cancel{4}^1}{\cancel{9}_3} = \frac{5}{4} \times \frac{1}{3} = \frac{5}{12}$$

$\frac{5}{12}$ of the members at Friendly Pool have children.

2

Seven-eighths of Mr. Tu's students exercise after school. Four-sevenths of these students use free weights. What fraction of Mr. Tu's students uses free weights?

$$\frac{7}{8} \times \frac{4}{7} = \frac{\cancel{7}^1}{\cancel{8}_2} \times \frac{\cancel{4}^1}{\cancel{7}_1} = \frac{1}{2} \times \frac{1}{1} = \frac{1}{2}$$

One-half of Mr. Tu's students use free weights.

Set 3

1

Martin has a cake recipe that uses $2\frac{2}{3}$ cups of flour. How much flour does Martin use if he bakes five of these cakes?

$$2\frac{2}{3} \times 5 = \frac{8}{3} \times \frac{5}{1} = \frac{40}{3} = 13\frac{1}{3}$$

Martin uses $13\frac{1}{3}$ cups of flour.

Multiply.

2

$$4\frac{1}{6} \times 3\frac{3}{5}$$

$$\begin{aligned} 4\frac{1}{6} \times 3\frac{3}{5} &= \frac{25}{6} \times \frac{18}{5} \\ &= \frac{\cancel{25}^5}{\cancel{6}_2} \times \frac{\cancel{18}^3}{\cancel{5}_1} \\ &= \frac{15}{1} = 15 \end{aligned}$$