

2.1

Multiplying Fractions

DO NOW

1) $6\frac{2}{5} + 4\frac{3}{4} =$

2) $6\frac{3}{4} - 4\frac{2}{5} =$

Simplifying Fractions

Put the fractions in simplest terms.

$$1) \quad \frac{12}{15}$$

$$3) \quad \frac{36}{72}$$

$$2) \quad \frac{18}{60}$$

Different ways to Multiply

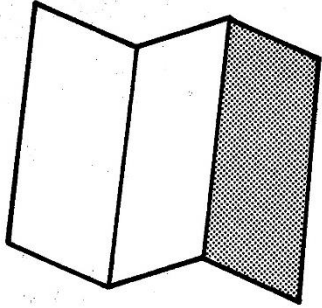
$$5 \times 4$$

$$5 \bullet 4$$

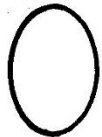
$$5(4)$$

$$(5)(4)$$

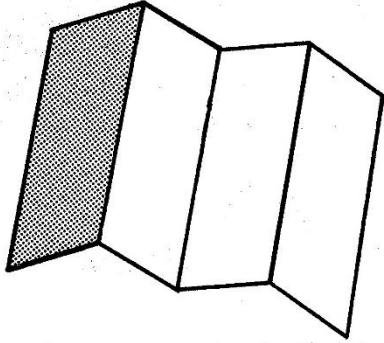
Understanding “Fractions of Fractions”




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folded into thirds.

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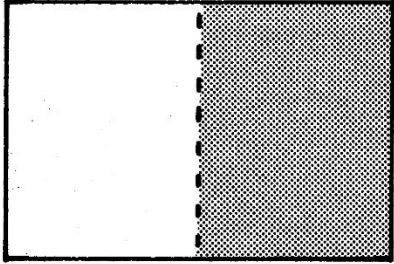
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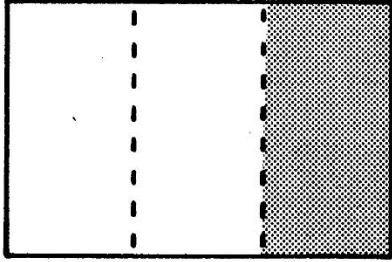
Understanding “Fractions of Fractions”



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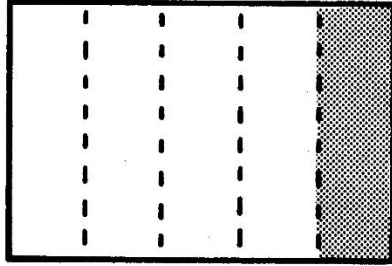
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$$\bigcirc \times \bigcirc = \bigcirc$$

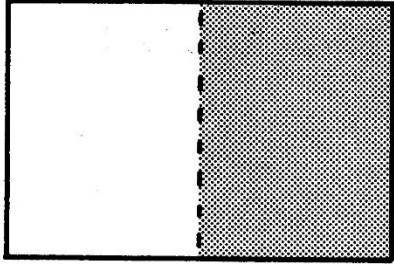
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$$\bigcirc \times \bigcirc = \bigcirc$$

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$$\bigcirc \times \bigcirc = \bigcirc$$

Times You Would Multiply a Fraction Times a Fraction

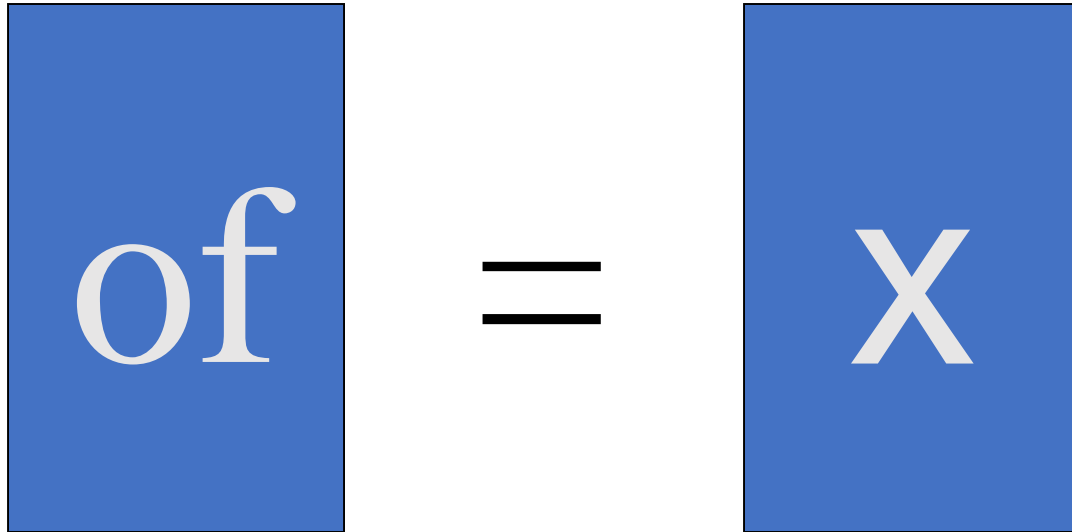
- ◎ Your family eats $\frac{1}{4}$ of $\frac{1}{2}$ of what's left of a birthday cake.

$$\frac{1}{4} \text{ of } \frac{1}{2} \quad \text{or} \quad \frac{1}{4} \times \frac{1}{2}$$



How to Find a Fraction of a Fraction

The first thing to remember is “of” means multiply in mathematics.



A diagram illustrating the mathematical meaning of the word "of". It consists of two blue rectangular boxes. The left box contains the word "of" in a white serif font. To the right of this box is an equals sign (=). To the right of the equals sign is another blue rectangular box containing a white multiplication symbol (X).

$$\text{of} = \times$$

Practice

$$1) \quad \frac{1}{3} \times \frac{5}{6} =$$

$$3) \quad \frac{5}{7} \times \frac{2}{3} =$$

$$2) \quad \frac{1}{4} \times \frac{7}{9} =$$

$$4) \quad \frac{3}{7} \times \frac{2}{3} =$$

Multiply and then simplify

$$a) \quad \frac{2}{3} \bullet \frac{3}{4} =$$

Multiply and then simplify

$$b) \quad \frac{15}{20} \times \frac{4}{10} =$$

Cross-simplify and then multiply

$$c) \quad \frac{2}{3} \bullet \frac{3}{4} =$$

Multiply and then simplify

$$d) \quad \frac{15}{20} \times \frac{4}{10} =$$

Practice

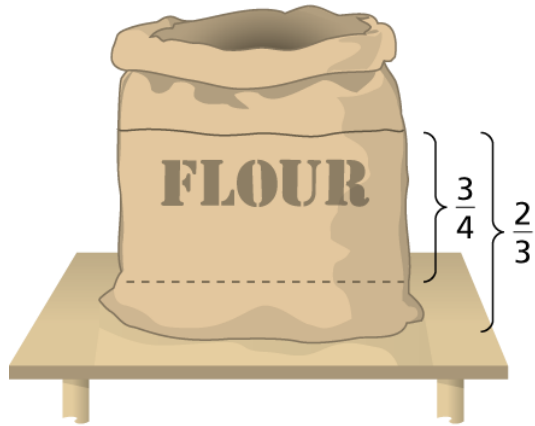
$$1) \quad \frac{7}{16} \times \frac{6}{7} =$$

$$3) \quad \frac{8}{11} \times \frac{11}{20} =$$

$$2) \quad \frac{15}{16} \times \frac{8}{20} =$$

$$4) \quad \frac{4}{9} \times \frac{15}{22} =$$

Real-life Application



You have $\frac{2}{3}$ of a bag of flour. You use $\frac{3}{4}$ of the flour to make empanada dough. How much of the entire bag do you use to make the dough?

Real-life Application

You have $\frac{5}{8}$ of a large bottle of shampoo.

You pour $\frac{3}{10}$ of the shampoo into a smaller bottle. How much of the entire larger bottle did you pour into the smaller bottle?