

REVIEW: Adding and Subtracting Fractions with Unlike Denominators

Name _____

Key Concept and Vocabulary

Find products.

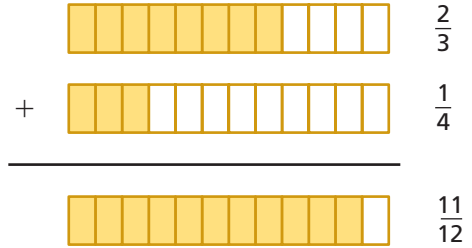
$$\frac{2}{3} \times \frac{1}{4} = \frac{2 \cdot 1}{3 \cdot 4} = \frac{2}{12}$$

$$\frac{2}{3} \times \frac{1}{4} = \frac{2 \cdot 4 + 3 \cdot 1}{3 \cdot 4} = \frac{11}{12}$$

$$\frac{2}{3} \times \frac{1}{4} = \frac{2 \cdot 4 - 3 \cdot 1}{3 \cdot 4} = \frac{5}{12}$$



Visual Model



Skill Examples

- $\frac{1}{5} + \frac{2}{3} = \frac{1 \cdot 3 + 5 \cdot 2}{5 \cdot 3} = \frac{13}{15}$
- $\frac{1}{2} + \frac{1}{4} = \frac{1 \cdot 4 + 2 \cdot 1}{2 \cdot 4} = \frac{6}{8} = \frac{3}{4}$
- $\frac{1}{3} - \frac{1}{4} = \frac{1 \cdot 4 - 3 \cdot 1}{3 \cdot 4} = \frac{1}{12}$
- $\frac{3}{7} - \frac{2}{5} = \frac{3 \cdot 5 - 7 \cdot 2}{7 \cdot 5} = \frac{1}{35}$

Application Example

- You ride your bike $\frac{3}{8}$ mile to the store. Then you ride $\frac{1}{6}$ mile to school. How far do you ride altogether?

$$\frac{3}{8} + \frac{1}{6} = \frac{3 \cdot 6 + 8 \cdot 1}{8 \cdot 6} = \frac{26}{48} = \frac{13}{24}$$



You ride $\frac{13}{24}$ mile.

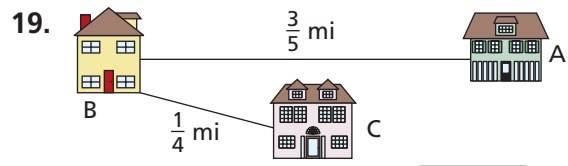
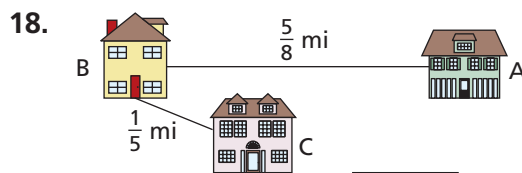
PRACTICE MAKES PURR-FECT™

Check your answers at BigIdeasMath.com.

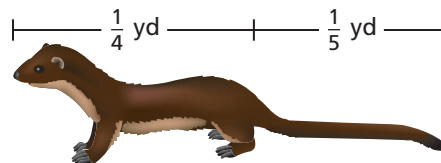
Find the sum or difference. Write your answer in simplified form.

- $\frac{1}{3} + \frac{1}{8} =$ _____
- $\frac{2}{3} + \frac{1}{5} =$ _____
- $\frac{3}{10} + \frac{1}{4} =$ _____
- $\frac{1}{2} + \frac{2}{5} =$ _____
- $\frac{3}{7} + \frac{1}{3} =$ _____
- $\frac{1}{8} + \frac{2}{5} =$ _____
- $\frac{5}{8} - \frac{1}{3} =$ _____
- $\frac{5}{6} - \frac{3}{5} =$ _____
- $\frac{5}{9} - \frac{2}{5} =$ _____
- $\frac{7}{10} - \frac{1}{4} =$ _____
- $\frac{3}{5} - \frac{1}{6} =$ _____
- $\frac{1}{5} - \frac{1}{6} =$ _____

Find the total distance from House A to House B and then to House C.

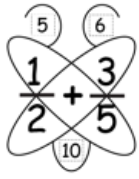
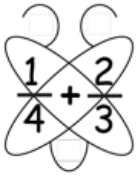
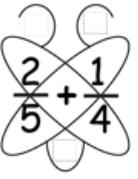


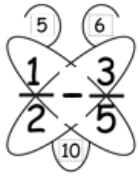
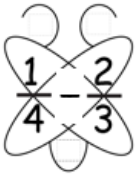
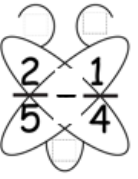
20. **WEASEL LENGTH** Find the total length of the weasel. _____



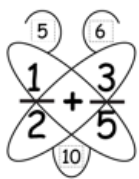
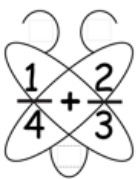
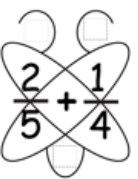
21. **IMPROVING YOUR SPEED** You swam at a rate of $\frac{3}{8}$ mile per hour in March. You swam at a rate of $\frac{3}{7}$ mile per hour in April. How much faster did you swim in April? _____

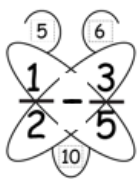
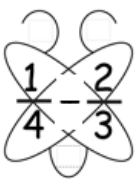
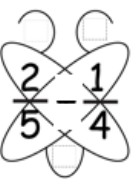
But what if I don't *know* what the least common multiple is?

| Fraction Addition | | |
|---|---|---|
| $\frac{1}{2} + \frac{3}{5}$ | $\frac{1}{4} + \frac{2}{3}$ | $\frac{2}{5} + \frac{1}{4}$ |
|  |  |  |

| Fraction Subtraction | | |
|--|---|---|
| $\frac{1}{2} - \frac{3}{5}$ | $\frac{1}{4} - \frac{2}{3}$ | $\frac{2}{5} - \frac{1}{4}$ |
|  |  |  |

But what if I don't *know* what the least common multiple is?

| Fraction Addition | | |
|---|---|---|
| $\frac{1}{2} + \frac{3}{5}$ | $\frac{1}{4} + \frac{2}{3}$ | $\frac{2}{5} + \frac{1}{4}$ |
|  |  |  |

| Fraction Subtraction | | |
|--|---|---|
| $\frac{1}{2} - \frac{3}{5}$ | $\frac{1}{4} - \frac{2}{3}$ | $\frac{2}{5} - \frac{1}{4}$ |
|  |  |  |