

# Adding and Subtracting Fractions with Unlike Denominators

NCTM Standards 1, 2, 4, 6, 7, 8, 9

**Add or subtract fractions of an hour and find the number of minutes.**

1  $\frac{1}{4}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{2}{3}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{1}{4} + \frac{2}{3} = \frac{\text{}{60} + \frac{\text{}{60} = \frac{\text{}{60}$  of an hour or  min

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2  $\frac{2}{3}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{1}{2}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{2}{3} + \frac{1}{2} = \frac{\text{}{60} + \frac{\text{}{60} = \frac{\text{}{60}$  of an hour or  min

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3  $\frac{1}{3}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{1}{5}$  of an hour =  min or  $\frac{\text{}{60}$  of an hour

$\frac{1}{3} - \frac{1}{5} = \frac{\text{}{60} - \frac{\text{}{60} = \frac{\text{}{60}$  of an hour or  min

**For each problem below:**

- A** Find a common denominator for the fractions.
- B** Write equivalent fractions using that denominator.
- C** Add or subtract.

**4**  $\frac{3}{10} + \frac{2}{5} = \frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

**5**  $\frac{2}{3} - \frac{2}{5} = \frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$

**6**  $\frac{5}{6} - \frac{2}{3} = \frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$

**7**  $\frac{4}{7} + \frac{2}{5} = \frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

**8**  $\frac{3}{8} + \frac{1}{6} = \frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

**9**  $\frac{4}{5} - \frac{1}{4} = \frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$



**10** Drew bought  $\frac{7}{8}$  of a yard of fabric to make a belt for his costume. He used  $\frac{2}{3}$  of a yard for the belt. How much fabric does he have left? Explain.

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**11 Challenge**

$7\frac{5}{6} - 3\frac{5}{9} = 7\frac{\square}{\square} - 3\frac{\square}{\square} = \square\frac{\square}{\square}$