

Name:

Adding and Subtracting fractions with different denominators

☞ You need both fractions to have the same denominator before adding or subtracting them.

1. **Find a common denominator** (choose a number that both denominators can divide into).
2. **Convert the fractions** (change each fraction to have the same denominator).
3. **Add or subtract the numerators** (keep the denominator the same).

Example: $\frac{2}{5} + \frac{1}{6} =$ The common denominator is 30.

$$\frac{2}{5} = \frac{12}{30} \quad \text{and} \quad \frac{1}{6} = \frac{5}{30}$$

Now we have:

$$\frac{12}{30} + \frac{5}{30} = \frac{17}{30}$$

Hint: If you can't find the lowest common denominator, you can multiply the two denominators to get a common denominator. It might not be the smallest, but it will still work!

Change both fractions to have the same denominator, then add them.

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

f) $\frac{3}{8} + \frac{3}{5} =$

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

g) $\frac{6}{25} + \frac{7}{20} =$

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

h) $\frac{3}{10} + \frac{5}{14} =$

d) $\frac{3}{10} + \frac{3}{8} =$

i) $\frac{3}{7} + \frac{2}{9} =$

e) $\frac{2}{7} + \frac{2}{3} =$

j) $\frac{5}{12} + \frac{3}{7} =$

Change both fractions to have the same denominator, then subtract them.

a) $\frac{2}{3} - \frac{1}{4} =$

f) $\frac{11}{12} - \frac{2}{9} =$

b) $\frac{3}{4} - \frac{1}{5} =$

g) $\frac{7}{10} - \frac{1}{3} =$

c) $\frac{3}{5} - \frac{1}{2} =$

h) $\frac{9}{14} - \frac{2}{5} =$

d) $\frac{5}{6} - \frac{1}{4} =$

i) $\frac{8}{20} - \frac{2}{25} =$

e) $\frac{3}{5} - \frac{1}{6} =$

j) $\frac{7}{10} - \frac{4}{9} =$