

Name:

### **Adding and Subtracting related fractions**

Related fractions are fractions with different denominators, but those denominators are linked - one is a multiple of the other. For example:  $\frac{1}{4}$  and  $\frac{1}{8}$  are related because 8 is a multiple of 4.

#### **How to Add or Subtract Related Fractions**

Make the denominators the same (find a common denominator).

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

Example:  $\frac{1}{4} + \frac{1}{8} =$  We can change  $\frac{1}{4}$  so it has the same denominator as  $\frac{1}{8}$ . ☞  $\frac{1}{4} = \frac{2}{8}$

Now we have:

$$\frac{2}{8} + \frac{1}{8} = \frac{3}{8} \quad (\text{So, } \frac{1}{4} + \frac{1}{8} = \frac{3}{8})$$

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Change one of the fractions so that both fractions have the same denominator, then add them.

a)  $\frac{1}{3} + \frac{1}{6} =$

f)  $\frac{2}{12} + \frac{5}{24} =$

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

g)  $\frac{5}{40} + \frac{6}{20} =$

c)  $\frac{3}{4} + \frac{1}{8} =$

h)  $\frac{9}{16} + \frac{4}{32} =$

d)  $\frac{2}{5} + \frac{3}{10} =$

i)  $\frac{8}{21} + \frac{2}{7} =$

e)  $\frac{2}{6} + \frac{3}{12} =$

j)  $\frac{4}{30} + \frac{7}{10} =$

Change one of the fractions so that both fractions have the same denominator, then subtract them.

a)  $\frac{4}{6} - \frac{1}{3} =$

f)  $\frac{5}{12} - \frac{5}{24} =$

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

g)  $\frac{17}{36} - \frac{5}{12} =$

c)  $\frac{3}{8} - \frac{1}{4} =$

h)  $\frac{3}{16} - \frac{2}{32} =$

d)  $\frac{3}{4} - \frac{1}{8} =$

i)  $\frac{13}{21} - \frac{3}{7} =$

e)  $\frac{4}{5} - \frac{3}{10} =$

j)  $\frac{65}{100} - \frac{7}{20} =$