

FRACTIONS

FRACTIONS WITHIN FRACTIONS

Example

Simplify: **a** $\frac{2 + \frac{1}{3}}{2 - \frac{1}{3}}$ **b** $\frac{\frac{2}{3} + \frac{3}{4}}{\frac{2}{3} - \frac{3}{4}}$ **c** $\frac{\frac{1}{3} + \frac{1}{4}}{1 - \frac{1}{5}}$

a $\frac{2 + \frac{1}{3}}{2 - \frac{1}{3}}$
 $= \left(\frac{2 + \frac{1}{3}}{2 - \frac{1}{3}} \right) \frac{3}{3} \quad \{\text{LCD} = 3\}$
 $= \frac{6 + 1}{6 - 1}$
 $= \frac{7}{5}$

b $\frac{\frac{2}{3} + \frac{3}{4}}{\frac{2}{3} - \frac{3}{4}}$
 $= \left(\frac{\frac{2}{3} + \frac{3}{4}}{\frac{2}{3} - \frac{3}{4}} \right) \frac{12}{12} \quad \{\text{LCD} = 12\}$
 $= \frac{8 + 9}{8 - 9}$
 $= \frac{17}{-1}$
 $= -17$

c $\frac{\frac{1}{3} + \frac{1}{4}}{1 - \frac{1}{5}}$
 $= \left(\frac{\frac{1}{3} + \frac{1}{4}}{1 - \frac{1}{5}} \right) \frac{60}{60} \quad \{\text{LCD} = 60\}$
 $= \frac{20 + 15}{60 - 12}$
 $= \frac{35}{48}$

Simplify:

a $\frac{1 + \frac{1}{2}}{1 - \frac{1}{2}}$

b $\frac{2 - \frac{1}{4}}{2 + \frac{1}{4}}$

c $\frac{1 + \frac{2}{3}}{2 - \frac{1}{3}}$

d $\frac{\frac{1}{2} + \frac{3}{4}}{\frac{3}{4} - \frac{1}{2}}$

e $\frac{\frac{1}{2} + \frac{1}{5}}{\frac{1}{2} - \frac{1}{5}}$

f $\frac{\frac{1}{3} + \frac{1}{4}}{\frac{1}{3} - \frac{1}{4}}$

g $\frac{\frac{1}{2} + \frac{1}{3}}{\frac{1}{3} - \frac{1}{4}}$

h $\frac{1 - \frac{1}{3}}{\frac{1}{2} - \frac{2}{5}}$

i $\frac{1 + \frac{1}{4} - \frac{1}{3}}{1 - \frac{1}{2} + \frac{1}{5}}$