

# fractions help

## MULTIPLY

2 fractions $\frac{2}{8} \times \frac{1}{2}$	fraction & whole number $5 \times \frac{3}{4}$	mixed numbers $2\frac{1}{3} \times \frac{7}{8}$
multiply numerators $\frac{2}{8} \times \frac{1}{2} = 2$ <b>1</b>	rewrite the whole number as an improper fraction $5 = \frac{5}{1}$ <b>1</b>	convert mixed numbers to improper fractions $2\frac{1}{3} = \frac{7}{3}$ <b>1</b>
multiply denominators $\frac{2}{8} \times \frac{1}{2} = \frac{2}{16}$ <b>2</b>	multiply across $\frac{5}{1} \times \frac{3}{4} = \frac{15}{4}$ <b>2</b>	multiply across $\frac{7}{3} \times \frac{7}{8} = \frac{49}{24}$ <b>2</b>
simplify $\frac{2}{16} = \frac{1}{8}$ <b>3</b>	simplify $\frac{15}{4} = 3\frac{3}{4}$ <b>3</b>	simplify $\frac{49}{24} = 2\frac{1}{24}$ <b>3</b>

## DIVIDE

2 fractions $\frac{1}{2} \div \frac{3}{4}$	whole number by a fraction $5 \div \frac{1}{2}$	fraction by a whole number $\frac{2}{3} \div 4$
find the reciprocal of the 2nd number $\frac{1}{2} \div \frac{3}{4} = \frac{4}{3}$ <b>1</b>	convert whole number to improper fraction $5 = \frac{5}{1}$ <b>1</b>	convert whole number to improper fraction $4 = \frac{4}{1}$ <b>1</b>
replace $\div$ with $\times$ $\frac{1}{2} \times \frac{4}{3}$ <b>2</b>	find the reciprocal of the 2nd number $\frac{5}{1} \div \frac{1}{2} = \frac{2}{1}$ <b>2</b>	find the reciprocal of the 2nd number $\frac{2}{3} \div \frac{4}{1} = \frac{1}{4}$ <b>2</b>
multiply across $\frac{1}{2} \times \frac{4}{3} = \frac{4}{6}$ <b>3</b>	replace $\div$ with $\times$ now multiply across $\frac{5}{1} \times \frac{2}{1} = \frac{10}{1}$ <b>3</b>	replace $\div$ with $\times$ now multiply across $\frac{2}{3} \times \frac{1}{4} = \frac{2}{12}$ <b>3</b>
simplify $\frac{4}{6} = \frac{2}{3}$ <b>4</b>	simplify $\frac{10}{1} = 10$ <b>4</b>	simplify $\frac{2}{12} = \frac{1}{6}$ <b>4</b>