

Name: ..... Class: .....

Add, subtract, multiply, and divide fractions and mixed numbers

Add and Subtract. Write your answer as a fraction, or as a whole or mixed number.

a.  $1\frac{2}{5} + \frac{3}{10}$

b.  $3\frac{7}{8} - 2\frac{1}{4}$

Multiply and divide. Write your answer as a fraction, as a whole or mixed number.

c.  $5\frac{2}{3} \times 3\frac{2}{5}$

d.  $2\frac{1}{5} \div 1\frac{1}{2}$



Name: ..... Class: .....

Add, subtract, multiply, and divide fractions and mixed numbers

Add and Subtract. Write your answer as a fraction, or as a whole or mixed number.

**a.**  $1\frac{2}{5} + \frac{3}{10}$

To solve this let's first of all add the whole numbers  
Next, find the LCM of 5 and 10. Then solve normally

$$1\frac{2}{5} + \frac{3}{10}$$

$$1\frac{4}{10} + \frac{3}{10} = 1\frac{7}{10}$$

So,  $1\frac{2}{5} + \frac{3}{10} = 1\frac{7}{10}$

**b.**  $3\frac{7}{8} - 2\frac{1}{4}$

To solve this let's first of all subtract the whole numbers  
Next, find the LCM of 8 and 4. Then solve normally

$$3\frac{7}{8} - 2\frac{1}{4}$$

$$(3-2=1)\frac{7}{8} - \frac{2}{8} = 1\frac{5}{8}$$

So,  $3\frac{7}{8} - 2\frac{1}{4} = 1\frac{5}{8}$

Multiply and divide. Write your answer as a fraction, as a whole or mixed number.

**c.**  $5\frac{2}{3} \times 3\frac{2}{5}$

Let's convert to improper fractions. Then multiply

$$5\frac{2}{3} = \frac{3 \times 5 + 2}{3} = \frac{17}{3} ; 3\frac{2}{5} = \frac{5 \times 3 + 2}{5} = \frac{17}{5}$$

$$\frac{17}{3} \times \frac{17}{5} = \frac{17 \times 17}{3 \times 5} = \frac{289}{15}$$

Now, let's simplify

$$\frac{289}{15} = 19\frac{4}{15}$$

$5\frac{2}{3} \times 3\frac{2}{5} = 19\frac{4}{15}$

**d.**  $2\frac{1}{5} \div 1\frac{1}{2}$

Let's convert to improper fractions. Then divide

$$2\frac{1}{5} = \frac{5 \times 2 + 1}{5} = \frac{11}{5} ; 1\frac{1}{2} = \frac{2 \times 1 + 1}{2} = \frac{3}{2}$$

Now, let's multiply  $\frac{11}{5}$  by the reciprocal of  $\frac{3}{2}$

$$\frac{11}{5} \times \frac{2}{3} = \frac{11 \times 2}{5 \times 3} = \frac{22}{15}$$

Now, let's simplify

$$\frac{22}{15} = 1\frac{7}{15}$$

$2\frac{1}{5} \div 1\frac{1}{2} = 1\frac{7}{15}$

