Learning Objective:	To be able to divide fractions and mixed numbers	**Name:**	
		Date:	

Do NOW Activity:

1   Work out 35 × 24

2   Round 2565 to the nearest 1000

3   What is 20% of £64?

4   Expand and simplify 2(3a − 1) + 3(a + 3)

5   Simplify $\frac{60}{75}$

PRIOR KNOWLEDGE CHECK:
1. I am able to multiply integers and convert mixed numbers into improper fractions

THE MAIN EVENT

WORKED EXAMPLE #1:

Work out $\frac{1}{7} \div \frac{3}{4}$ *KFC* $\frac{1}{7} \times \frac{4}{3} = \frac{4}{21}$

PRACTICE #1:

Question 1:   Work out the following divisions.

(a) $\frac{1}{5} \div \frac{2}{3}$ (b) $\frac{3}{4} \div \frac{4}{5}$ (c) $\frac{1}{2} \div \frac{7}{8}$ (d) $\frac{2}{3} \div \frac{5}{6}$

(e) $\frac{1}{10} \div \frac{4}{9}$ (f) $\frac{6}{11} \div \frac{5}{6}$ (g) $\frac{2}{5} \div \frac{13}{15}$ (h) $\frac{3}{8} \div \frac{7}{9}$

(i) $\frac{3}{5} \div \frac{1}{2}$ (j) $\frac{7}{9} \div \frac{2}{3}$ (k) $\frac{8}{15} \div \frac{7}{10}$ (l) $\frac{9}{10} \div \frac{1}{3}$

(m) $\frac{5}{6} \div \frac{3}{4}$ (n) $\frac{13}{20} \div \frac{8}{11}$ (o) $\frac{4}{17} \div \frac{3}{16}$ (p) $\frac{5}{7} \div \frac{10}{19}$

WORKED EXAMPLE #2:

Work out

$5 \div \frac{3}{4}$ $\frac{5}{1} \times \frac{4}{3} = \frac{20}{3}$

$6\frac{2}{3}$ (2)

Work out

$\frac{5}{6} \div 3$ $\frac{5}{6} \div \frac{3}{1}$

$\frac{5}{6} \times \frac{1}{3} = \frac{5}{18}$ $\frac{5}{18}$ (2)

PRACTICE #2:

Question 2: Work out the following divisions

(a) $\dfrac{3}{4} \div 2$ (b) $\dfrac{4}{7} \div 8$ (c) $\dfrac{11}{20} \div 3$ (d) $\dfrac{9}{40} \div 5$

(e) $4 \div \dfrac{2}{3}$ (f) $2 \div \dfrac{3}{4}$ (g) $12 \div \dfrac{2}{3}$ (h) $5 \div \dfrac{2}{9}$

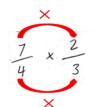## WORKED EXAMPLE 3:

Work out $1\dfrac{3}{5} \div \dfrac{3}{4}$

$\dfrac{8}{5} \div \dfrac{3}{4}$ *change to improper fractions*

$\dfrac{8}{5} \times \dfrac{4}{3}$ **KFC** $= \dfrac{32}{15}$

$2\dfrac{2}{15}$

Work out $1\dfrac{3}{4} \div 1\dfrac{1}{2}$

$\dfrac{7}{4} \times \dfrac{2}{3}$ **KFC** $= \dfrac{14}{12}$

$= \dfrac{7}{6} = 1\dfrac{1}{6}$

PRACTICE #3:

Question 3: Work out the following divisions.

(a) $\dfrac{2}{3} \div 1\dfrac{4}{5}$ (b) $1\dfrac{1}{2} \div 1\dfrac{9}{10}$ (c) $2\dfrac{3}{7} \div \dfrac{1}{2}$ (d) $2\dfrac{1}{3} \div 5\dfrac{1}{2}$

(e) $3 \div 2\dfrac{1}{8}$ (f) $4\dfrac{1}{3} \div 2\dfrac{9}{10}$ (g) $6\dfrac{5}{6} \div 2$ (h) $1\dfrac{5}{12} \div 2\dfrac{2}{11}$

APPLICATION:

Question 1: James shares $\dfrac{5}{8}$ of a cake between 6 people.

What fraction of the cake do they each receive?

Question 2: John has 12 cans of dog food.
He has two dogs and he gives each dog $\dfrac{2}{3}$ of a can of dog food each day.

Does he have enough dog food to last one week?

Question 3: : Alisha has $\dfrac{7}{8}$ litres of lemonade.

She is pouring glasses that each contain $\dfrac{1}{5}$ litres.

How many full glasses can she pour?