Don's Year 6 Maths Group

Homework: handed out Friday 22nd January 2016 To be handed in: Wednesday 27th January 2016

All about fractions

You all worked fantastically hard this week. Well done. So I am going easy on you and only giving you the briefest of recaps for homework.

Remembering the ways we manipulated fractions in the class this week solve the following

Converting between mixed and improper:

Solve these (remember if the fraction can be simplified to do so!)

$\frac{34}{18} = \frac{\square}{\square}$	$\frac{43}{15} = \frac{\square}{\square}$
$\frac{33}{13} = \frac{\square}{\square}$	$\frac{42}{16} = \frac{\square}{\square}$

$2\frac{1}{7} = \frac{\square}{\square}$	$2\frac{1}{8} = \frac{\square}{\square}$
$3\frac{1}{8} = \frac{\square}{\square}$	$3\frac{1}{10} = \frac{\square}{\square}$

Finding Equivalent Fractions:

Fill in the blanks to make equivalent fraction to the first one (remember—you don't need to work from left to right—you can jump around!)

$$\frac{24}{27} = \frac{40}{\square} = \frac{56}{\square} = \frac{32}{\square} = \frac{\square}{9} = \frac{\square}{18} = \frac{\square}{54}$$

Simplify Fractions:

Beside each fraction write it in it's simplest equivalent form (lowest denominator possible).

$\frac{36}{48}$ $\frac{14}{49}$ $\frac{27}{72}$ $\frac{18}{30}$

Ordering Fractions:

Order the following sets the way specified—remember to do this you need to convert them to the same denominator, compare to order, then write them in the form you were given (not the converted one).

Set 1: order in descending Order

$\frac{37}{48}$ $\frac{5}{6}$ $\frac{13}{24}$ $\frac{9}{12}$ $\frac{1}{4}$

Set 2: order in ascending Order

$\frac{4}{9}$ $\frac{5}{6}$ $\frac{1}{2}$ $\frac{2}{3}$ $\frac{1}{6}$

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Add and Subtract Fractions:

Complete the following sums—remember before you can do an addition or subtraction you must convert one or both of them to equivalents so that they have the same denominator (show your converting as working out). Simplify answers if they can be.

$\frac{16}{42} + \frac{3}{7} + \frac{11}{14} =$

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

$\frac{2}{3} - \frac{1}{6} - \frac{1}{12} =$

$\frac{7}{18} + \frac{1}{2} + \frac{8}{9} =$

Multiply Fractions:

Use the cancelling technique to make these easier and give answers in the simplest form:

$\frac{8}{16} \times \frac{3}{18} =$

$\frac{5}{6} \times \frac{3}{20} =$

Divide Fractions:

Use the invert and multiply technique we did in class—give answers in their simplest form.

$\frac{1}{2} \div \frac{7}{8} =$

$\frac{5}{7} \div \frac{5}{10} =$

Finding Fractions of a Quantity

Remember, to find a fraction of a given quantity you divide by the denominator (bottom) and multiply by the numerator (top). Solve the following problems:

$\frac{4}{5}$ of the tickets for a Lady Gaga concert have been sold. If there are 2000 tickets how many have been sold?

In a car park $\frac{4}{7}$ of the cars are silver. There are 700 cars in the car park. How many are NOT silver?

Ordering

Remember, to order a given list of numbers if they are in different formats it is not easy. Convert all to either fractions, decimals OR percentages then order. Don't try to order when mixed. Put these in order, **biggest to smallest**

$\frac{7}{8}$ 37% 0.65 55% 0.6 $\frac{9}{20}$ $\frac{3}{5}$ 90% $\frac{4}{3}$

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Show all working please:

Calculate **60%** of **765**:

Calculate **5%** of **£3600:**

Calculate **35%** of **420:**

Calculate **27%** of **560**:

Write in the missing numbers.

30% of 60 is ☐

30% of ☐ is 60

Emily makes 250 grams of a snack mixture. 15% of the weight is raisins, 25% is banana chips and the rest is peanuts. How many grams of **peanuts** does she use?

350 000 people visited a theme park in one year. **15%** of the people visited in April and **40%** of the people visited in August. How many people visited the park in the rest of the year?