1) Compare these values using either the greater than or less than symbol or the equals sign.

$\frac{1}{2}$		60%		0.3		$\frac{1}{5}$

30%		0.25		$\frac{2}{8}$		0.17

71%		$\frac{2}{3}$		0.65		$\frac{3}{5}$

2) In the class library, 0.13 of the books are dictionaries or thesauruses. The remaining books are either fiction or non-fiction. 44% of the books in the library are fiction.

Are there more fiction or non-fiction books in the library?
Explain your reasoning.

_____

_____

_____

3) In key stage 2, $\frac{11}{50}$ of the children have black hair; 0.4 of them have brown hair; 16% have ginger hair. The rest have blonde hair.

a) Which hair colour is there the least of in KS2?

_____

b) Which hair colour is there an equal amount of?

_____

1) Jack has a bag of marbles.

- $\frac{7}{20}$ of the marbles are red.
- 12% of the marbles are yellow.
- 0.18 of the marbles are green.
- $\frac{1}{5}$ of the marbles are blue.
- The rest of the marbles are pink.

There are fewer pink marbles in the bag than any other colour.

Is Jack's statement correct? Explain your reasoning.

_____

_____

_____

2) Here are three riddles.

Riddle A

As a percentage, I am a whole number with an even tens digit and an odd ones digit.

As a simplified fraction, my denominator is 4.

Riddle B

As a decimal, I am repeating.

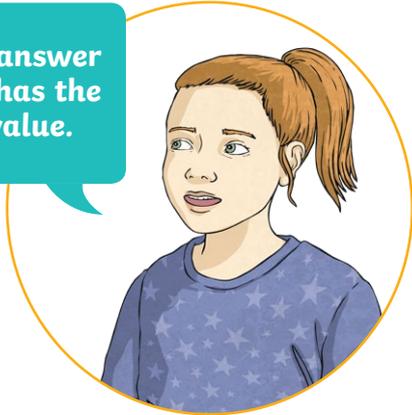As a percentage, I am between 20% and 50%.

As a fraction, both my numerator and denominator are less than 5.

Riddle C

In percentage form, I am a whole number that is a multiple of 10 with an even tens digit.

In simplified fraction form, the difference between my denominator and numerator is 1.

I think the answer to riddle C has the greatest value.

Do you agree?

Explain your reasoning.

_____

_____

_____

1) Three children are creating their own fruit smoothies. They have the same five ingredients but can use as much or as little of them as they like. Look carefully at the **proportions of the ingredients** used and the **volume in millilitres of each smoothie**. First of all, find the amount of each ingredient used in the three smoothies. Then, use the information to answer the questions.

Peter's Pink Party Smoothie 500ml

Ingredients	Proportion	Amount in ml
Watermelon	10%	
Strawberry	0.25	
Apple	$\frac{2}{5}$	
Raspberry	0.1	
Beetroot	$\frac{3}{20}$	

Ruby's Rainbow Rush Smoothie 600ml

Ingredients	Proportion	Amount in ml
Watermelon	$\frac{6}{100}$	
Strawberry	0.2	
Apple	30%	
Raspberry	0.04	
Beetroot	$\frac{2}{5}$	

Graeme's Glorious Smoothie 800ml

Ingredients	Proportion	Amount in ml
Watermelon	$\frac{5}{100}$	
Strawberry	$\frac{1}{5}$	
Apple	25%	
Raspberry	0.1	
Beetroot	0.4	
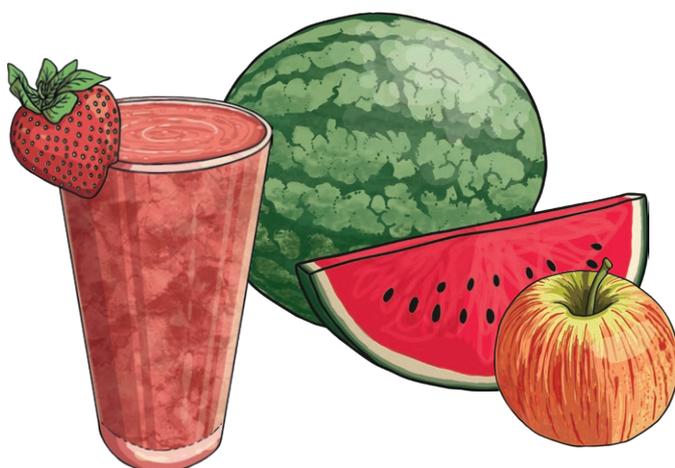
a) Which smoothie uses the most watermelon?

_____

b) Which smoothie uses the least strawberry?

_____

c) Which smoothie uses the least apple?

_____

d) Which smoothie uses the least raspberry?

_____

e) Which smoothie uses the most beetroot?

_____

2) Make your own smoothie recipe with ingredients written as a combination of fractions, decimals and percentages totalling 100%. Give it to a friend to calculate the amount in ml for a litre jug and a 200ml glass.

_____

_____