

Hi Yachts ☺

Mental Maths

Choose the best option for you then solve the problem in your head:

Option 1: Can you name all of the shapes below?



Option 2: Choose one of the 3D shapes below. Think of one interesting fact that you know about it – use the words **face**, **edge** and **vertex** or **vertices** in your fact.



Use the RUCSAC method to solve the problems:



Read

Read the question carefully.



Underline

Underline or write down the keywords and numbers.



Choose

Choose the correct operation (+ – x or ÷) and a mental or written method of calculation (you could use diagrams).



Solve

Solve it! Make sure you follow the steps carefully.



Answer

Check that you have answered the question properly. What did you need to find out in the first place?



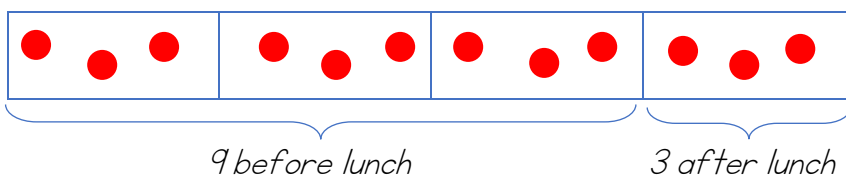
Check

Check your answer. Use the inverse calculation or another checking technique (was it close to your estimate?)

Use a fraction strip to help you with these questions. *Example: I have 12 maths problems and I solve three quarters of them before lunch.*

a. How many maths problems do I solved before lunch?

b. How many do I solve after lunch?



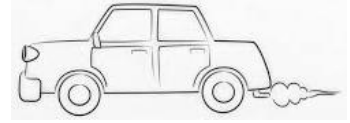
I have 28p and I spend one quarter of it.

- How much money do I spend?
- How much money do I have left?



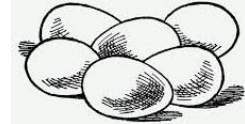
- I drove for 18 hours in total to visit my friend in Scotland. I took the same route there and back.

- How many hours did the journey there take?
- How many hours did the journey back take?



- I collect 24 eggs from my hens but I break three quarters of them when I fall.

- How many eggs do I break?
- How many eggs are left?



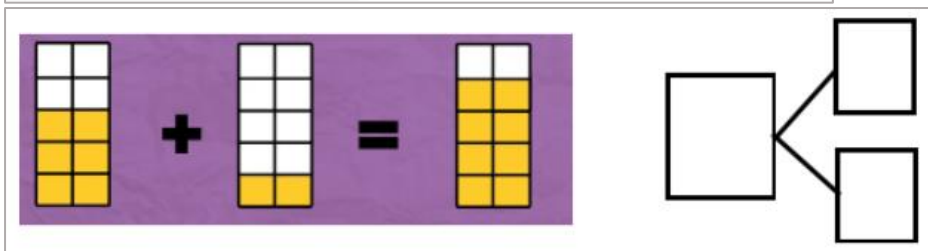
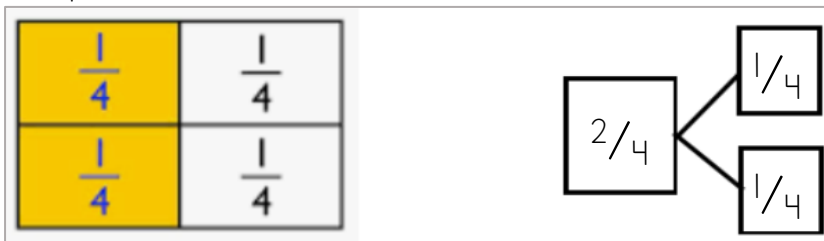
- I have 30 sweets in a packet and I give one third of them to my friend.

- How many sweets does my friend have now?
- How many sweets do I have now?

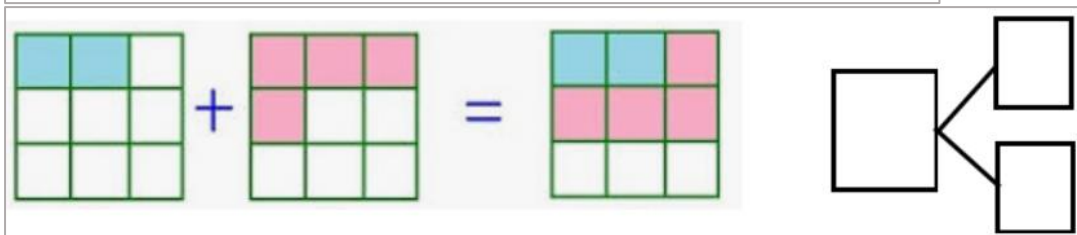


- Nina says that $\frac{1}{2} + \frac{1}{2} = \frac{2}{4}$ because when we add fractions with the same denominator, we add the **numerators** together and the **denominators** together. Do you agree? Explain your answer.

- Use a part-whole model to add these fractions with the same denominator. I have given you an example:



a.



b.

- Add the fractions together and draw a diagram to show your answer (make sure that your parts are equal). I have given an example:

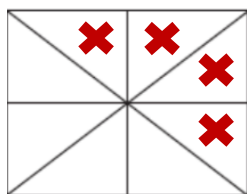
$$\frac{5}{8} + \frac{2}{8} = \frac{7}{8}$$



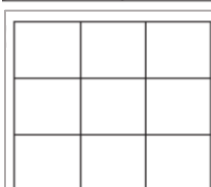
a. $\frac{4}{6}$ add $\frac{1}{6}$

b. Five sevenths + two sevenths

7. Cross out the parts of the diagrams that have been subtracted then write down what fraction is left. I have done the first one for you.

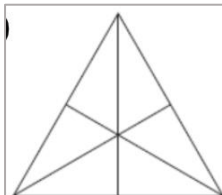


$$\frac{8}{8} - \frac{4}{8} = \frac{4}{8}$$



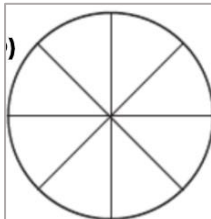
$$\frac{9}{9} - \frac{8}{9} = \frac{\quad}{\quad}$$

a.



$$\frac{6}{6} - \frac{2}{6} = \frac{\quad}{\quad}$$

b.



$$\frac{8}{8} - \frac{6}{8} = \frac{\quad}{\quad}$$

c.

Challenges

8. Complete the table to give the measurements in fractions and decimals.

0.3m	
	$\frac{5}{100}$ m
0.1cm	
0.09m	
	$\frac{90}{100}$ cm
0.05m	
	$\frac{7}{100}$ cm
	$\frac{9}{100}$ m

9. Colour and label the towers below by combining tenths. How many combinations can you come up with? I have given an example:

