

Tuesday 30th June 2020

Place Value

Hi Yachts!

Mental Maths

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

Option 1: If I know that $4 \times 5 = 20$, what else do I know?

Option 2: If I know that one fifth of 50 is 10, what other fractions can I work out?

Option 3: Order these fractions from smallest to greatest: $\frac{1}{5}$, $\frac{2}{8}$, $\frac{3}{4}$, $\frac{5}{9}$, $\frac{1}{2}$, $\frac{6}{7}$

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 \div) 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?)

1. Use the symbol $<$ $>$ or $=$ to compare these amounts:

45 _____ 96

thirteen _____ twelve

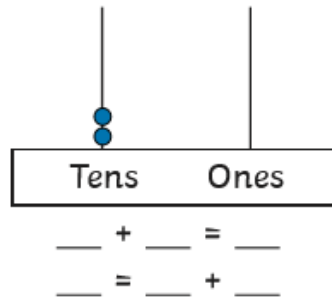
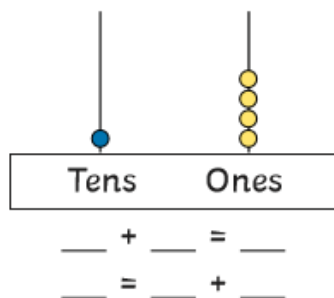
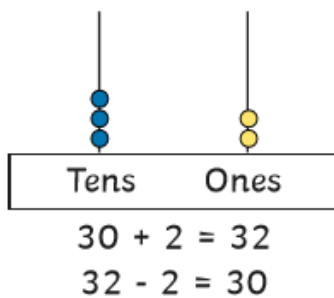
72 _____ 121

39 _____ thirty nine

28 _____ 8

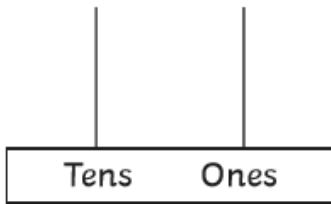
fifty one _____ 41

2. Write two different calculations for each diagram. The first one has been done for you.



3. Complete the diagram to show these number sentences:

$10 + 6 = 16$ $16 = 6 + 10$



4. Can you find out which numbers I'm thinking of using my clues?

a. It is a three-digit number

The ones digit is even

The tens digit is half of 16

The hundreds digit is double the ones digit

The ones digit is two less than the tens digit

b. It is a two-digit number

The tens digit is one quarter of 28

The sum of the digits is 12

c. It is a three-digit number

All the digits are even

The hundreds digit is double 4

The ones digit is one half of the hundreds digit

The tens digit is the answer to 0×1

5. Ruby, Mohammed and Nikki each describe a number.

Ruby says, "My number has four hundreds and five tens."

Mohammed says, "Mine has six hundreds and nine ones."

Nikki says, "My number has eight tens and seven ones."

a. Which number is the greatest?

b. Explain how you know.

Challenge

6. I start with some hundreds, some tens and some ones Dienes. After exchanging, I only want to have hundreds Dienes.

a. What Dienes could I start with?

b. Which units are the key ones (hundreds, tens or ones)?

c. How many ones do you always need?

d. If I want to keep the hundreds and tens the same, what could I do?