

Money

Mental Maths

Choose the best option for you then solve it in your head.

**Option 1:** Fill in the missing numbers:

$$2 \times 10 = 20 \quad 10 \times \underline{\quad} = 20 \quad 20 \div 2 = \underline{\quad} \quad 20 \div \underline{\quad} = 2$$

**Option 2:** I know that  $3 \times 12 = 36$ . How can that help me to solve  $3 \times 24$ ?

**Option 3:** What number facts can help you to solve  $5 \times 16$ ?

Choose the best set of questions below for you to answer, or you could try all of them! 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**


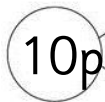
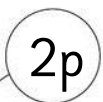


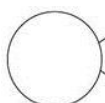
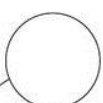
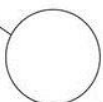
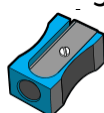
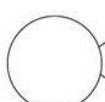
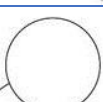
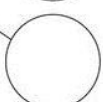

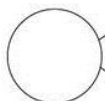
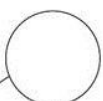
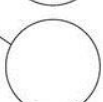

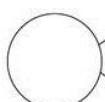
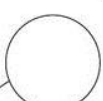
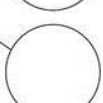
Check that you have answered the question properly. What did you need to find out in the first place?



**Check**

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

1. Think about what happens when you buy something from a shop. Imagine that you have a 50p coin and you buy a pencil that costs 10p. You must give your 50p coin to the shopkeeper but you didn't spend it all so she must give you some of it back (we call this change). The shopkeeper keeps 10p of your money because you swapped this for the pencil and she gives you the other 40p back.  
Complete the part-whole models to show how much change the children should receive. I have given you an example.

Henry gave the shopkeeper 10p	He bought  2p	  
Kim gave the shopkeeper 20p	She bought  5p	  
Ash gave the shopkeeper 20p	He bought  10p	  
Polly gave the shopkeeper 25p	She bought  23p	  
Saul gave the shopkeeper 50p	He bought  35p	  

2. Use the receipts to find the total cost of the items and the change that is due.

Riverside Shop	
Book	£1.50
Toy doll	£3.00
TOTAL	<input type="text"/>
CASH	£5.00
CHANGE DUE	<input type="text"/>

Riverside Shop	
Packet of crisps	45p
Bottle of water	60p
Ham sandwich	£1.50
TOTAL	<input type="text"/>
CASH	£3.00
CHANGE DUE	<input type="text"/>

Riverside Shop	
Teddy Bear	£4.99
Toy Car	£1.45
TOTAL	<input type="text"/>
CASH	£8.00
CHANGE DUE	<input type="text"/>

Riverside Shop	
Drum	£4.58
Flute	£4.43
TOTAL	<input type="text"/>
CASH	£9.50
CHANGE DUE	<input type="text"/>

Riverside Shop	
Kit Kat	50p
Apple	12p
Pineapple	£1.29
TOTAL	<input type="text"/>
CASH	£2.00
CHANGE DUE	<input type="text"/>

Riverside Shop	
Xylophone	£3.79
Recorder	£1.85
TOTAL	<input type="text"/>
CASH	£7.00
CHANGE DUE	<input type="text"/>

### Challenges

3. Calculate the amount in each choice and then select the largest amount. Show how you worked out each answer.

Would you rather have...?	$\frac{1}{4}$ of 48p	$\frac{1}{7}$ of 77p	$\frac{1}{10}$ of 80p
Would you rather have ...?	Six tenths of fifty pence	Three quarters of forty four pence	Five eighths of forty eight pence
Would you rather have ...?	$\frac{1}{2}$ of 92p	$\frac{2}{3}$ of 60p	$\frac{1}{6}$ of 72p
Would you rather have ...?	One fifth of forty pence	Two quarters of twenty four pence	Seven eighths of sixteen pence

Now write some of you own Would you rather...? questions using money below £1 for someone in your home to solve.