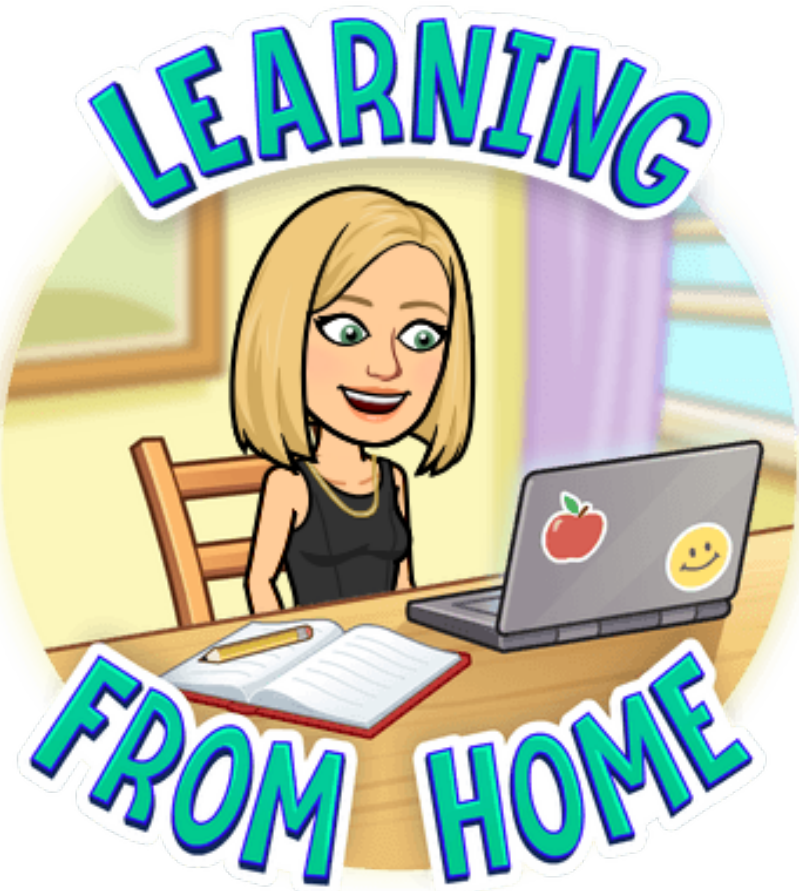


# Year 2 Maths: Find Change

Friday 22<sup>nd</sup> January 2021

Today we are going to use our learning from the past few days to work out how to find change. There is a video to watch on our Remote Learning page and some tasks to complete in this file. I know you will be brilliant at this and I can't wait to see your work.



# Fluency

Complete the calculations

$16 + \underline{\quad} = 20$

$40 + \underline{\quad} = 100$

$7 + \underline{\quad} = 20$

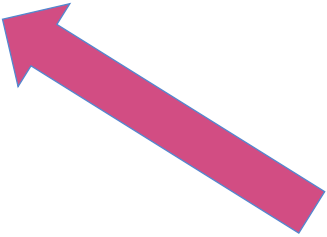
$70 + \underline{\quad} = 100$

$37 + 54 =$

$45 + 32 =$

$76 - 43 =$

$38 - 29 =$



Talk to your grown up about any links you can see between these pairs of calculations.

# Fluency Answers

Complete the calculations

$$37 + 54 = 91$$

$$45 + 32 = 77$$

$$76 - 43 = 33$$

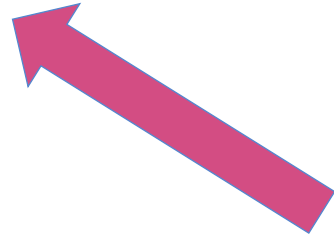
$$38 - 29 = 9$$

$$16 + 4 = 20$$

$$40 + 60 = 100$$

$$7 + 13 = 20$$

$$70 + 30 = 100$$



Did you notice how we can use related facts to help us solve these calculations. So  $16 + 4 = 10$ ,  $16 + 4 = 20$  and  $40 + 60 = 100$ .  $7 + 3 = 10$ ;  $7 + 13 = 20$  and  $70 + 30 = 100$ .

# Anchor Task

**Matt has these coins:**



**He spends 24p.**

**What money will he have left? \_\_\_\_\_**

**What coins could it be?**



There is more than one combination of coins that could be used.



# Anchor Task

Matt has these coins:



He spends 24p.

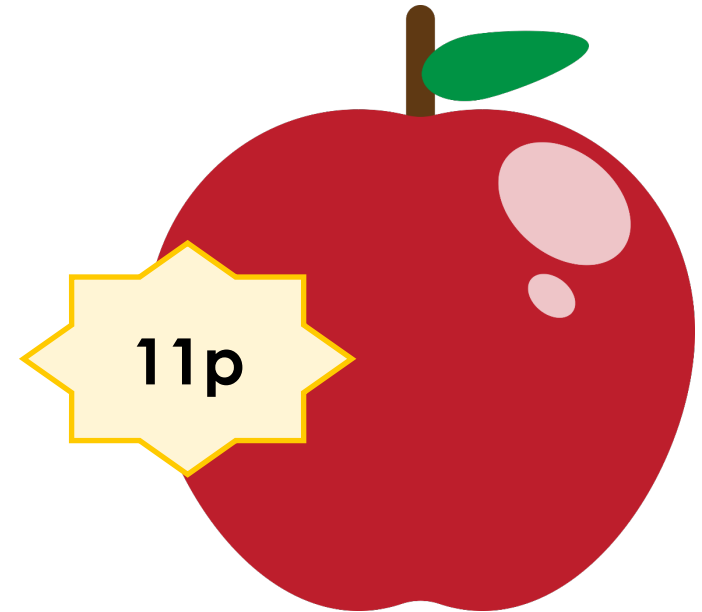
What money will he have left? \_\_\_\_\_

What coins could it be?

**5p, 1p OR 3 x 2p  
OR 6 x 1p  
or a combination of  
these coins.**

# Explore

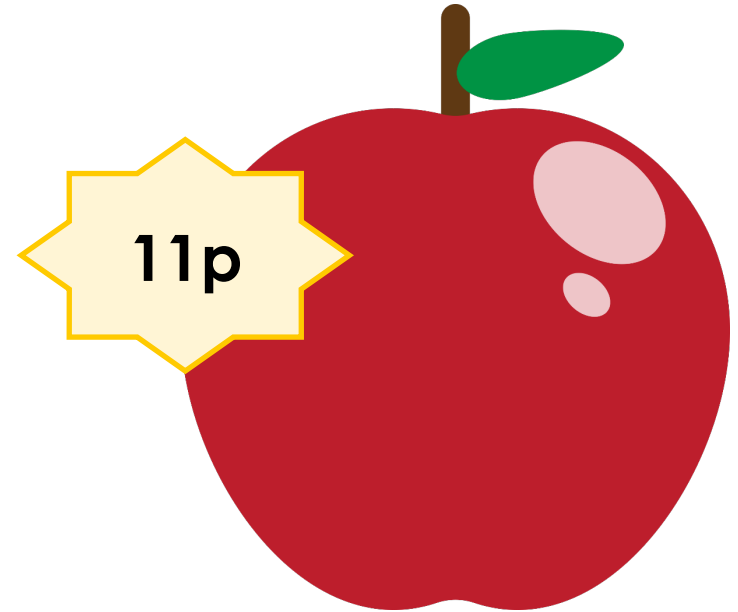
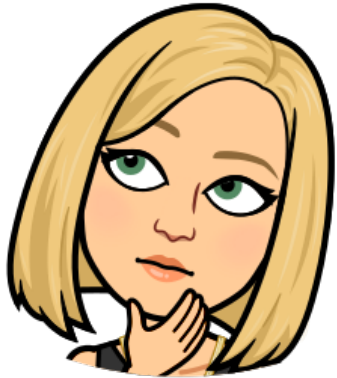
Mrs Riley wants to buy an apple. What problem does she have?



Talk to your grown up about the cost of the apple and the coin that Mrs Riley has.

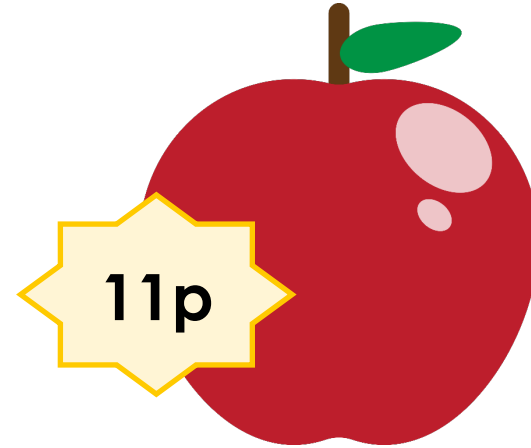
# Explore

If Mrs Riley gives 20p to the shopkeeper she is paying too much.

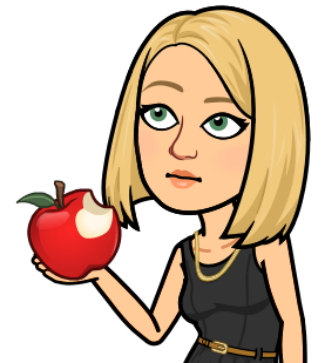


Talk to your grown up about what will happen if Mrs Riley gives the shopkeeper a 20p coin to pay for something that only costs 11p.

# Explore



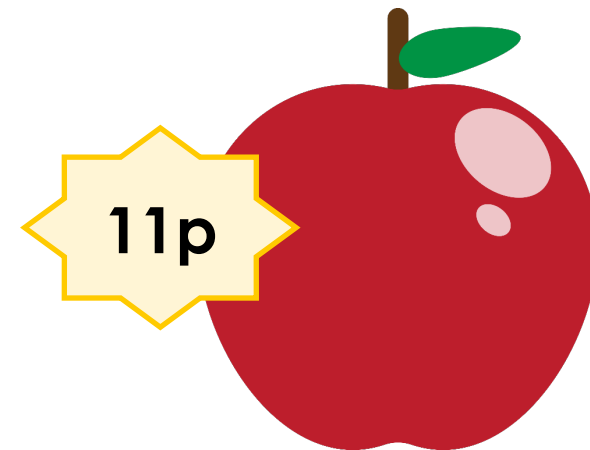
This happens all the time.  
We often give a shopkeeper more money than the  
cost of what we want to buy. The shopkeeper then  
gives us some change.



# Explore

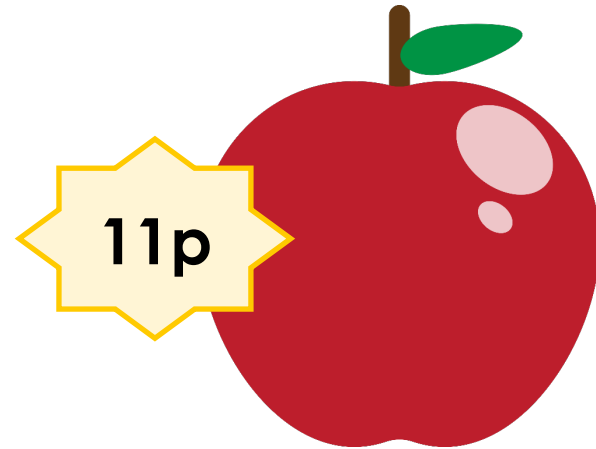
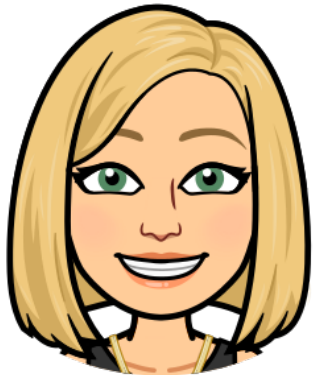
If Mrs Riley uses the 20p piece what change will she get?

What facts can you use to help you? Talk to your grown up about your ideas.



# Explore

I can use my number bonds to 20 to help.  
I know  $20 - 11 = 9$ , so 20p - 11p is 9p. I will have 9p change.



# Guided Practice

Mrs Riley wants to buy the pizza. She has £1  
How much change will she need?

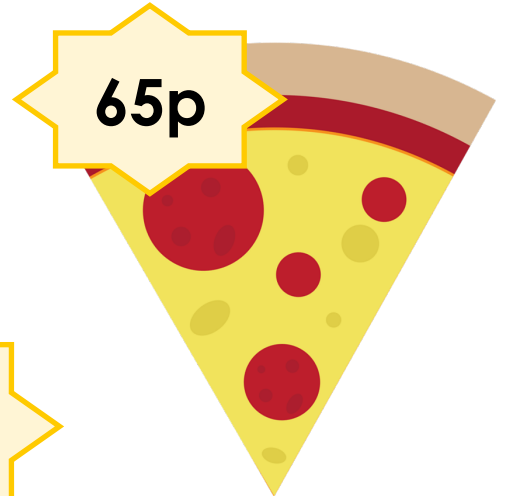


-

65p

=

?

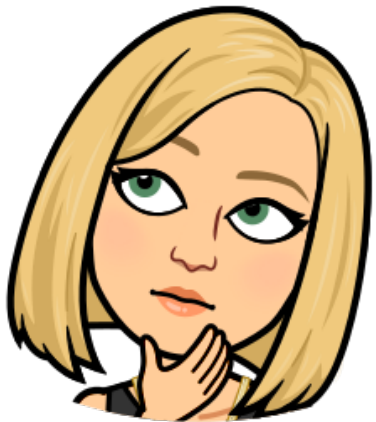
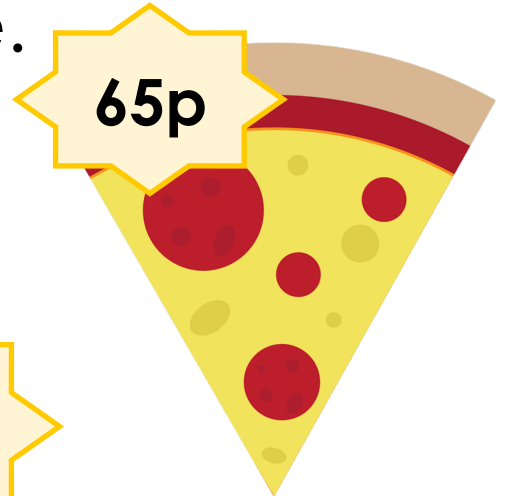


Let's begin by using what we know about £1. There are 100 pennies in £1.

To work out change, I need to find the difference between the two amounts - 100 and 65p

# Guided Practice

Let's write this as a subtraction.  
To solve it I must count on a number line.  
I could count on from 65p up to 100p  
or count back 65p from 100.



$$100p - 65p = \text{[empty starburst]}$$

Remember counting back is a subtraction  
A subtraction is another way of finding the difference.



# Guided Practice



We call counting on **shopkeeper method**.

We start with the smallest amount, jump along the number line until we reach the largest amount then count the jumps.

£1 - 65p  
Count on:

+5p +10p +10p +10p  
65p 75p 85p 95p £1

Add up the jumps  
5p + 10p + 10p + 10p =  
5p + 30p = 35p

Count back  
USE SUBTRACTION

£1 - 65p = 35p

60 5

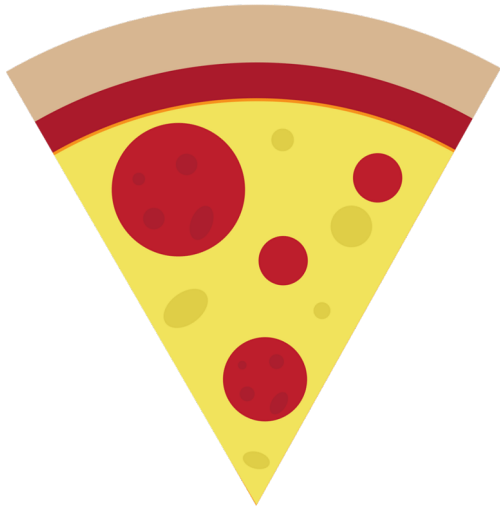
35p 95 100

The handwritten notes illustrate the shopkeeper method for calculating £1 - 65p. It starts with '£1 - 65p' and 'Count on:'. A number line is shown with jumps of 5p, 10p, 10p, and 10p, starting from 65p and ending at £1. The jumps are added up: 5p + 10p + 10p + 10p = 35p. Then, 'Count back USE SUBTRACTION' is shown, with a tree diagram for £1 - 65p = 35p, where 60 and 5 are circled. A number line shows 35p, 95, and 100, with jumps of -60 and -5.

When we count back, we write the biggest number at the end of our number line and jump back by the smaller amount. This is what we did on Wednesday.

# Guided Practice

So the difference between £1 (100p) and 65p is 35p.  
So if I pay for my slice of pizza with £1, I will be given  
35p change.



$$100\text{p} - 65\text{p} = 35\text{p}$$

# Independent Practice 1

How much change will Mrs Riley receive if she buys a doughnut for 59p



59p



**Hint:**

How many pennies are in £1?

# Review



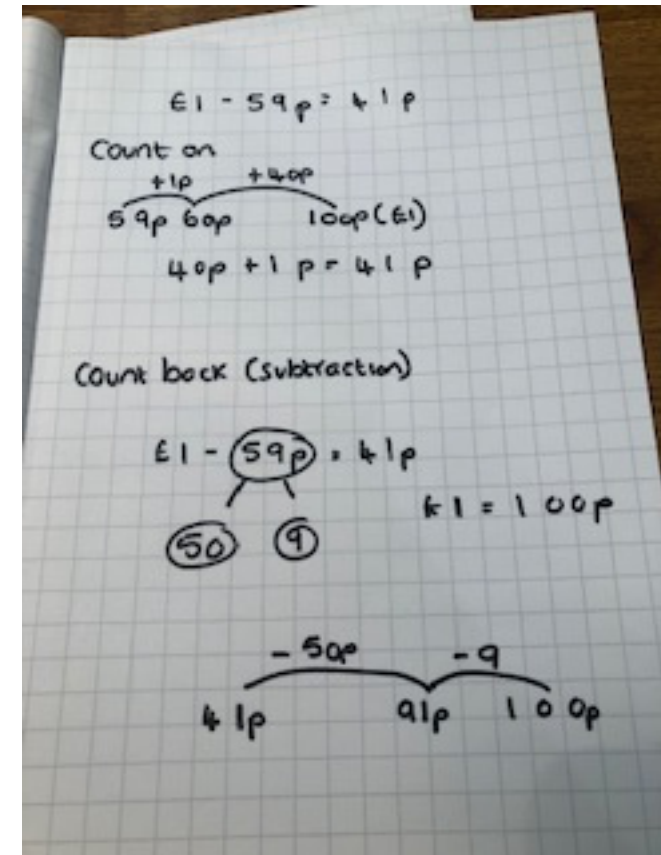
**59p**



There are 100 pennies in £1 so you need to work out the difference between 59p and 100p. You can count on from 59p (shopkeeper method) or back from £1 (use your subtraction skills).

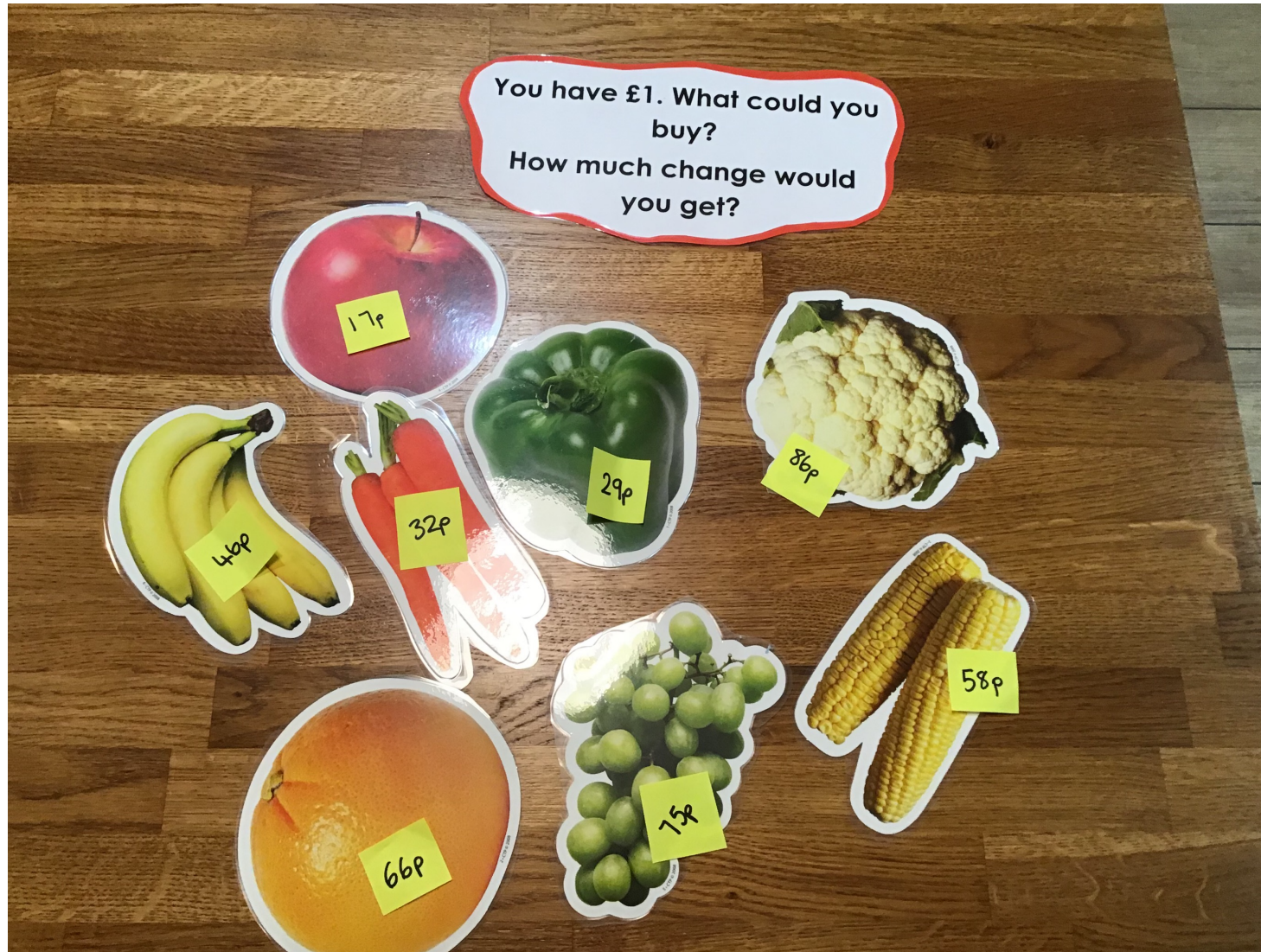
# Review

$$£1 - 59p = 41p$$





# Independent Task



Choose an item from the shop.  
How much change will you have from £1?

Show how you have worked out your answers – see my example on the next page.



Check you have calculated the correct change by using the inverse operation – see my example in the video.

# Example

Finding change

$£1 - 37p = 63p$  *Count on*

$37p + 3p = 40p$   $40p + 60p = 100p$   
 $£1$

$60p + 3p = 63p$

I have 63p change.

*Count back*

$£1 - 37p = 63p$

$100p - 30p = 70p$   $70p - 7p = 63p$   
 $63p$   $93p$   $100p$   
 $£1$

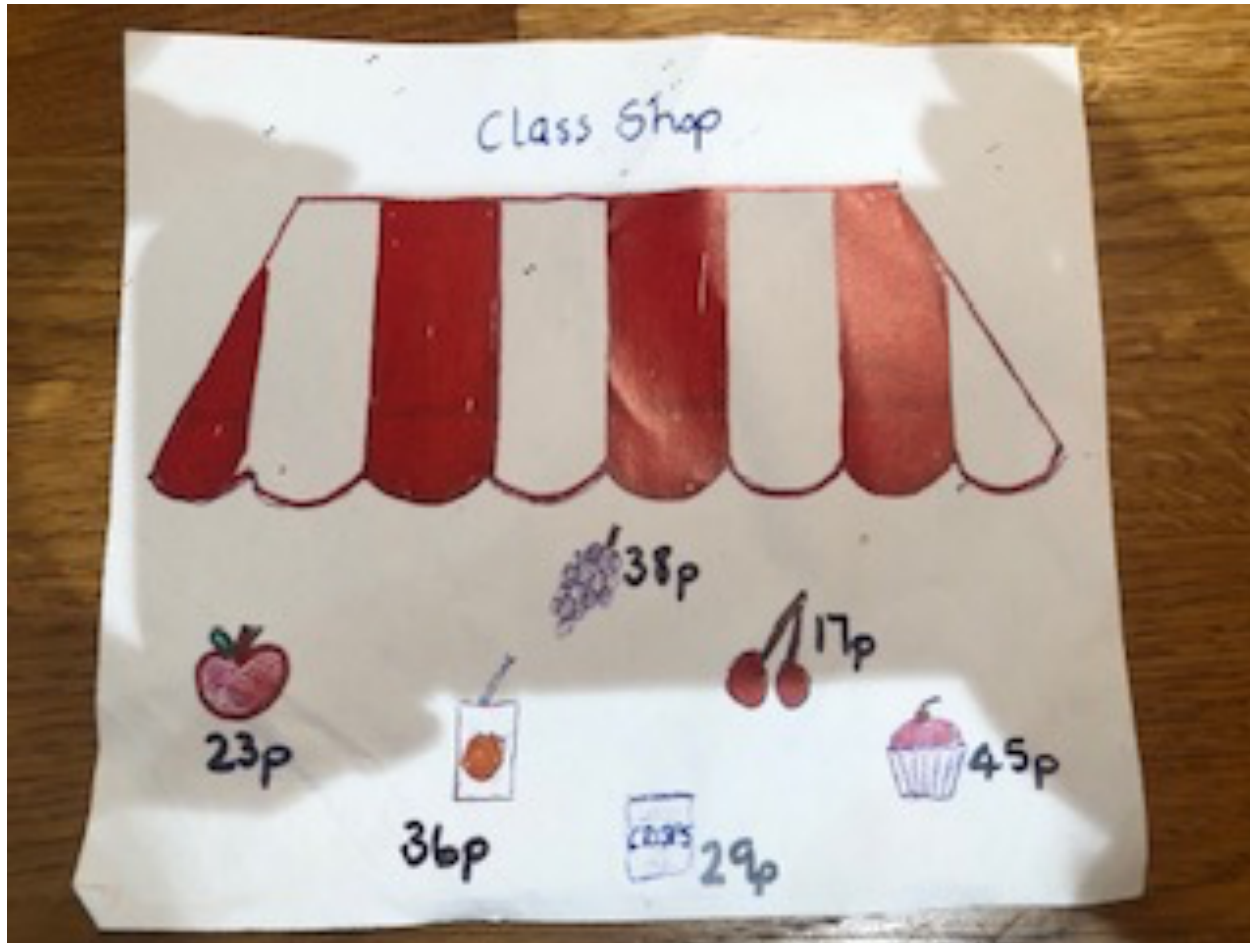
I have 63p change

Remember you can choose to count on (shopkeeper method) or count back. However, whichever way you choose, you must show all your working out.





# Try this if you are finding things a little tricky



Choose an item from the shop.

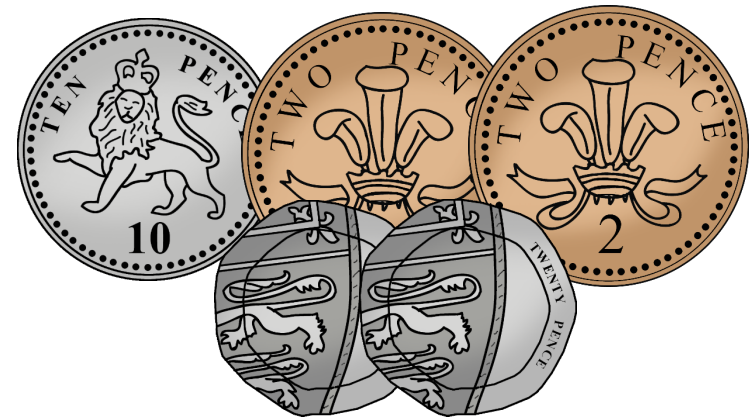
How much change will you have from 50p?

Show how you have worked out your answers.



# Exit task – Dong Nao Jin

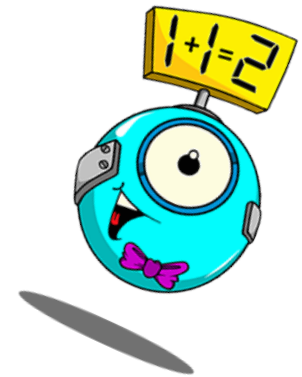
Mrs Riley had £1.  
She bought the chips and has this change.



How much were the chips?



On the next few pages, you will find some extra practice sheets. **These are optional, which means you don't have to do them.** They are just there if you want to use them.



1 Find the change.

a Kat has these coins.



She spends 53p.

What money will she have left? \_\_\_\_\_

What coins could it be? \_\_\_\_\_

b Ben has these coins.



He spends 67p.

What money will he have left? \_\_\_\_\_

What coins could it be? \_\_\_\_\_

2 Write number sentences to help you find the change.

a



21p



$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

b



34p



$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

c



81p



$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

1 Find the change.

a Kat spends 36p in the shop.  
She pays with a 50p coin.



How much change will she receive? \_\_\_\_\_

36p

b Asha spends 75p in the shop.  
She pays with a £1 coin.



How much change will she receive? \_\_\_\_\_

75p

c Jack spends 25p in the shop. He pays with a 50p coin.  
He says he received 15p change.  
Is this true or false? Explain your answer.

\_\_\_\_\_

\_\_\_\_\_

2 Dom says,



I paid for my items with **one** silver coin. Here is my change...



What could Dom have paid with and how much would the item have been?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1 Complete:

a Kat has these coins.



She spends 64p.

What money will she have left? \_\_\_\_\_

What coins could it be? \_\_\_\_\_

2 Write number sentences to help you find the change.

a



25p



\_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_

b



76p



\_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_

3 Answer the following problems.

a Jack spends 25p in the shop. He pays with a 50p coin.  
He says he received 15p change.  
Is he correct? Explain your answer.

\_\_\_\_\_

b Asha spends 88p in the shop. She pays with a £1 coin.  
She says she received 12p change.  
Is this true or false? Explain your answer.

\_\_\_\_\_

1 Ben says,



I have 20p. My change is more than 5p but less than 10p.  
What could I have bought?



Doughnut 7p



Chocolate 12p



Cookie 4p



Cupcake 17p

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**ANSWERS**

Answers

$$£1 - 17p = 83p$$

$$\begin{array}{r} 83 + \\ \underline{17} \\ 100 \\ + \end{array}$$

check

$$£1 - 46p = 54p$$

$$\begin{array}{r} 54 + \\ \underline{46} \\ 100 \\ + \end{array}$$

$$£1 - 32p = 68p$$

$$\begin{array}{r} 68 + \\ \underline{32} \\ 100 \\ + \end{array}$$

$$£1 - 29p = 71p$$

$$\begin{array}{r} 71 + \\ \underline{29} \\ 100 \\ + \end{array}$$

$$£1 - 86p = 14p$$

$$\begin{array}{r} 14 + \\ \underline{86} \\ 100 \\ + \end{array}$$

$$£1 - 66p = 34p$$

$$\begin{array}{r} 34 + \\ \underline{66} \\ 100 \\ + \end{array}$$

$$£1 - 75p = 25p$$

$$\begin{array}{r} 25 + \\ \underline{75} \\ 100 \\ + \end{array}$$

$$£1 - 58p = 42p$$

$$\begin{array}{r} 42 + \\ \underline{58} \\ 100 \\ + \end{array}$$

$$50p - 23p = 27p$$

$$50p - 36p = 14p$$

$$50p - 29p = 21p$$

$$50p - 45p = 5p$$

$$50p - 17p = 33p$$

$$50p - 38p = 12p$$



1 Find the change.

a Kat has these coins.



She spends 53p.

What money will she have left? 7p

What coins could it be? 5p, 2p OR 5p, 1p, 1p OR 3 x 2p, 1p

OR 7 x 1p.

b Ben has these coins.



He spends 67p.

What money will he have left? 13p

What coins could it be? 10p, 2p, 1p OR 10p, 1p, 1p, 1p, OR 5p,

5p, 2p, 1p, OR 5p, 5p, 1p, 1p, 1p, OR 6 x 2p, 1p OR 13 x 1p.

2 Write number sentences to help you find the change.

a



21p



$$\underline{30p} - \underline{21p} = \underline{9p}$$

b



34p



$$\underline{50p} - \underline{34p} = \underline{16p}$$

c



81p



$$\underline{£1} - \underline{81p} = \underline{19p}$$

1 Find the change.

a Kat spends 36p in the shop.  
She pays with a 50p coin.



36p

How much change will she receive? 14p

b Asha spends 75p in the shop.  
She pays with a £1 coin.



75p

How much change will she receive? 25p

c Jack spends 25p in the shop. He pays with a 50p coin.  
He says he received 15p change.  
Is this true or false? Explain your answer.

False. He would receive 25p change.

50p - 25p = 25p OR 25p + 25p = 50p.

2 Dom says,



I paid for my items with **one** silver coin. Here is my change...



What could Dom have paid with and how much would the item have been?

Dom could have paid with a 20p coin. He would have spent 5p.

20p - 5p = 15p OR 5p + 15p = 20p.

Dom could have paid with a 50p coin. He would have spent 35p.

50p - 15p = 35p OR 15p + 35p = 50p.

1 Complete:

a Kat has these coins.



She spends 64p.

What money will she have left? 11p

What coins could it be? 5p, 5p, 1p OR 10p, 1p, OR 5 x 2p, 1p

OR 11 x 1p.

2 Write the calculation to find the change.

a



25p



40p - 25p = 15p

b



76p



£1 - 76p = 24p

3 Answer the following problems.

a Jack spends 25p in the shop. He pays with a 50p coin. He says he received 15p change. Is he correct? Explain your answer.

Jack is incorrect. He would receive 25p change.

50p - 25p = 25p OR 25p + 25p = 50p.

b Asha spends 88p in the shop. She pays with a £1 coin. She says she received 12p change. Is this true or false? Explain your answer.

True. She would receive 12p in change.

£1 - 88p = 12p OR 88p + 12p = £1.

1 Ben says,



I have 20p. My change is more than 5p but less than 10p. What could I have bought?



Doughnut 7p



Chocolate 12p



Cookie 4p



Cupcake 17p

Chocolate bar (8p change).

Doughnut and the cookie (9p change)



Well done!

The image features the words "Well done!" in a highly stylized, bubbly font. The word "Well" is on the top line, with "W" in yellow with orange polka dots, "e" in orange with white polka dots, "l" in blue with white polka dots, and "l" in green with white polka dots. The word "done!" is on the bottom line, with "d" in pink with white polka dots, "o" in blue with white polka dots, "n" in purple with white polka dots, "e" in red with white polka dots, and an exclamation point in yellow with white polka dots. The graphic is decorated with several small stars in purple, red, yellow, and green, and light blue swirls. Two red ribbons with circular centers are attached to the words: one to the second "l" in "Well" and one to the "d" in "done!".