

Estimate answers to calculations

1 There are 195 people on a train.  
There are 308 people on a plane.

a) Complete the sentences to estimate the total number of people.

195 is close to 200 308 is close to 300

My estimate for the number of people in total is

200 + 300 = 500

b) Work out the total number of people on the train and plane.

503

Was it a good estimate? How do you know?



2 Estimate the answer to 395 + 49

395 is close to 400 49 is close to 50

My estimate is 450

Work out the exact answer.

How close was your estimate? Talk to a partner.



3 For each question work out an estimate and the exact answer.

Question	Estimate	Exact answer
705 – 194	700 - 200 = 500	511
511 – 97	500 - 100 = 400	414
187 + 203 + 19	100 + 200 + 20 = 320	409

4 Why is it a good idea to estimate the answer to a calculation?  
Write one reason.

To check if the answer makes sense / is approximately correct.

5 Amir is working out  $195 + 412$

		H	T	O	
		1	9	5	
+		4	1	2	
	5	1	0	7	

Use an estimate to show how you know Amir is wrong.

$$200 + 400 = 600$$

Amir's answer is too big.

6 Mr Jones cycles some kilometres each day.

The table shows the distance he cycles.

Monday	Tuesday	Wednesday	Thursday
189 km	88 km	215 km	53 km

Mr Jones planned to cycle 500 km in total by the end of Thursday.

a) Has Mr Jones cycled as many kilometres as he planned?

Give an estimate.

$$200 + 100 + 200 + 50 = 550 \quad \text{Yes}$$

b) How far has Mr Jones cycled in total?

545 km

7 A bottle is full of 813 ml of orange juice.

A glass has a capacity of 495 ml.

Can you pour two full glasses of juice? Give an estimate.

Explain your answer.



$$\text{No} \quad 500\text{ml} + 500\text{ml} = 1,000\text{ml}$$

$$813\text{ml} < 1,000\text{ml}$$

8 Whitney is estimating if she has saved enough money to buy a new dress and a new bike.



Whitney has so far saved £220

I have not saved enough.  
£65 is close to £100 and £153 is close to £200. That means I need about £300

Is Whitney correct? No

Explain your answer.

$$£153 \text{ is closer to } £150 \text{ and } £65 \text{ is closer to } £70$$

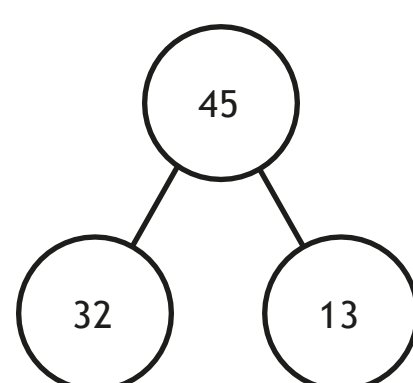
$$£150 + £70 = £220 \text{ so she has saved enough.}$$



## Check answers

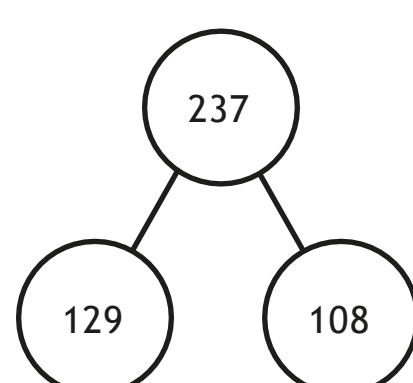
1 Complete the fact family for each model.

a)



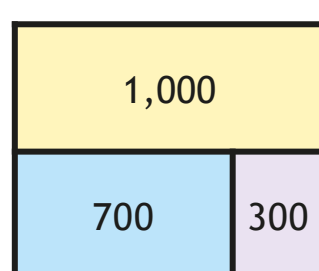
32	+	13	=	45
13	+	32	=	45
45	-	32	=	13
45	-	13	=	32

b)



129	+	108	=	237
108	+	129	=	237
237	-	129	=	108
237	-	108	=	129

c)



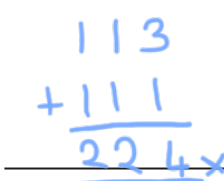
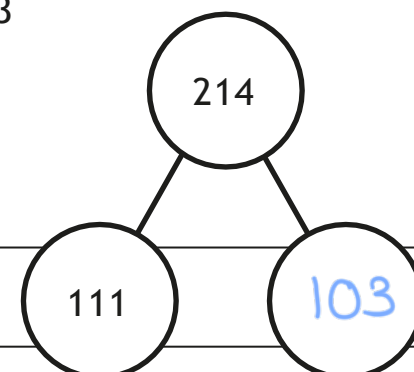

700	+	300	=	1,000
300	+	700	=	1,000
1,000	-	700	=	300
1,000	-	300	=	700

2 There is a mistake in each subtraction.

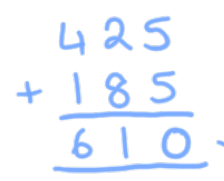
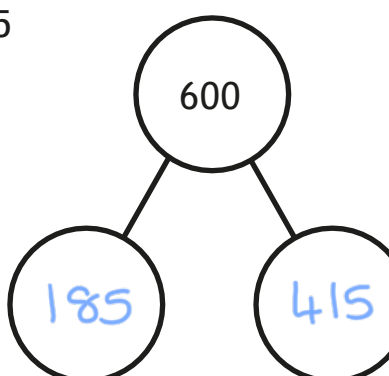
Use an addition to check each subtraction.

Complete the part-whole models.

a)  $214 - 111 = 113$

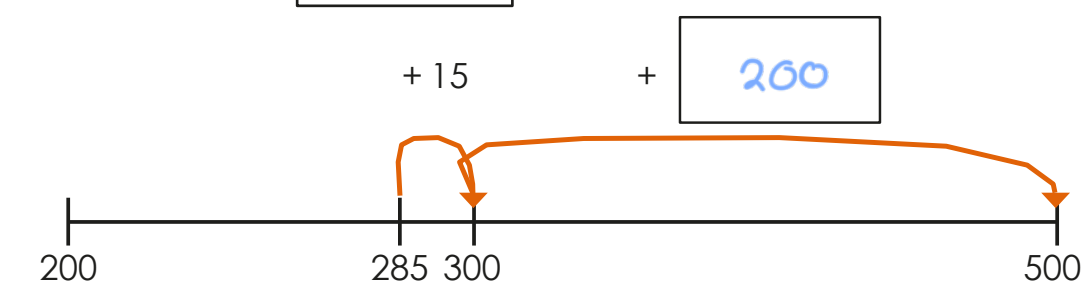
b)  $425 = 600 - 185$

3 Show an addition on the number line that could be used to work out the subtraction.

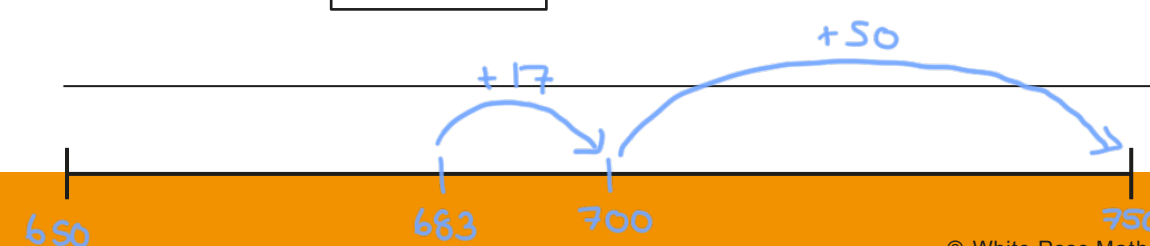
a)  $500 - 285 =$

215



b)  $750 - 683 =$

67



- 4 Teddy is working out an addition calculation.



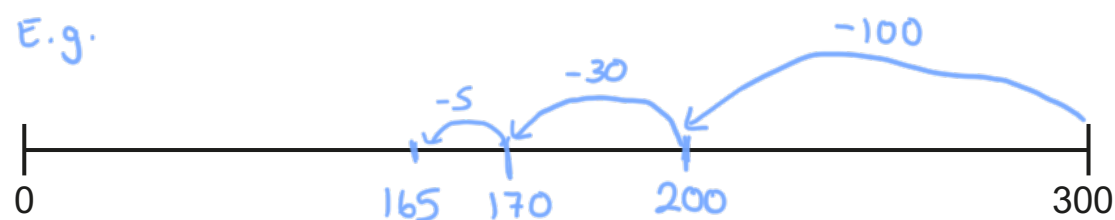
175 + 135 is 300

- a) What subtraction could Teddy do to check he is correct?

$300 - 175$  or  $300 - 135$

- b) Draw the subtraction on the number line to show that Teddy is wrong.

E.g.



- c) What is the correct answer to Teddy's question?

310

- 5 Work out the problem and then check your calculation.

A crate contains 462 apples.

Some apples are used to make juice.

There are 187 apples left.

How many apples were used to make the juice?

275

- 6 Work out the problem and then check your calculation.



Kim reads a book.

The book has 200 pages.

She reads 75 pages on Monday and 39 pages on Tuesday.

How many pages does she have left to read?

86

- 7 Use the digit cards to make two 3-digit numbers.



Write an addition using your numbers.

E.g.  $367 + 458$

What is the answer to your addition?

825

Ask a partner to check your addition.

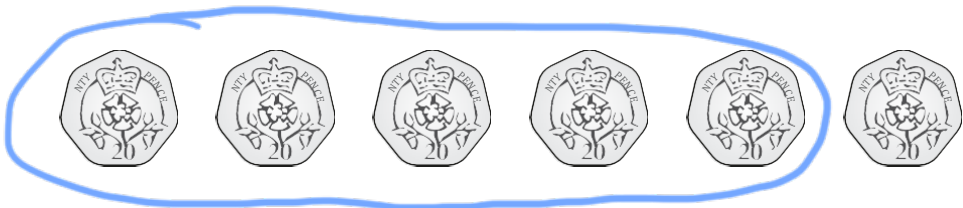
Talk about the different methods you can use.

Convert pounds and pence

1 a) Circle £1



b) Circle £1



c) Circle £1



d) Circle £10

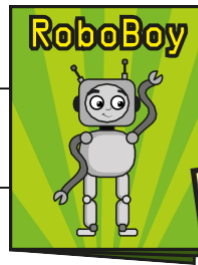


2 How many 1p coins do you need to make £1?

100



3 Write the price of each item in pence.



£1 and 24p

124 p



£2 and 24p

224 p



£6 and 45p

645 p

4 Write each amount in pounds and pence.

a) 274p = £ 2 and 74 p    b) 592p = £ 5 and 92 p

374p = £ 3 and 74 p    591p = £ 5 and 91 p

474p = £ 4 and 74 p    590p = £ 5 and 90 p



c) 111p = £  and  p

d) 405p = £  and  p

5 Annie has some coins.



a) How much money does Annie have? £  and  p

b) What is 10p more? £  and  p

What is 10p less? £  and  p

c) What is 100p more? £  and  p

What is 100p less? £  and  p

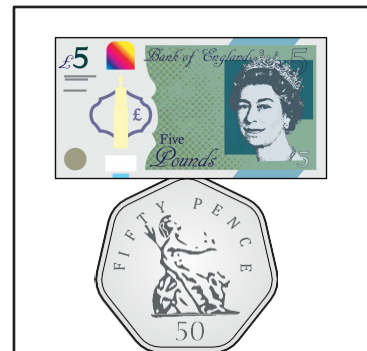
6 What amount is represented in each box?



£  and  p

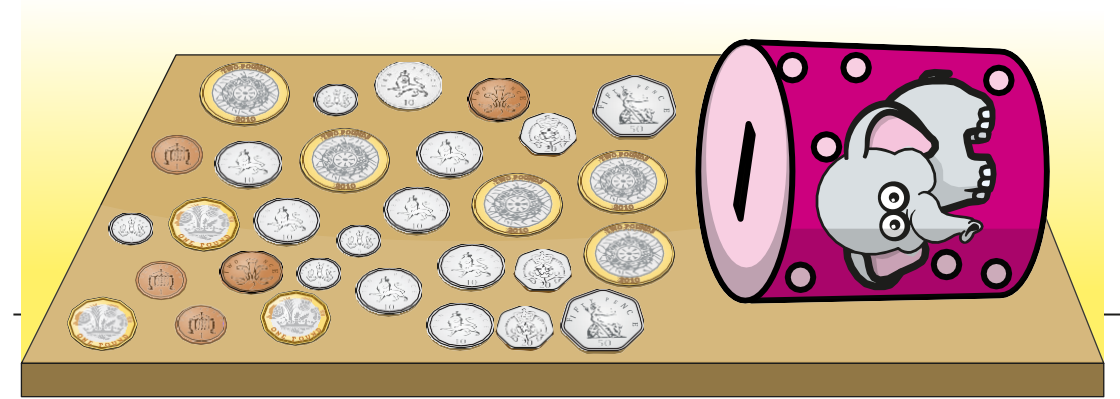


£  and  p



£  and  p

7 Eva empties out her money box.



How much money was in her money box? £  and  p

How did you count the coins? Compare with a partner.

8 a) What is the fewest number of coins you can use to represent 315p?

4 coins: £2, £1, 10p, 5p

b) Use 6 coins to make an amount that is more than £3, but less than £4. Draw your answer.

E.g.

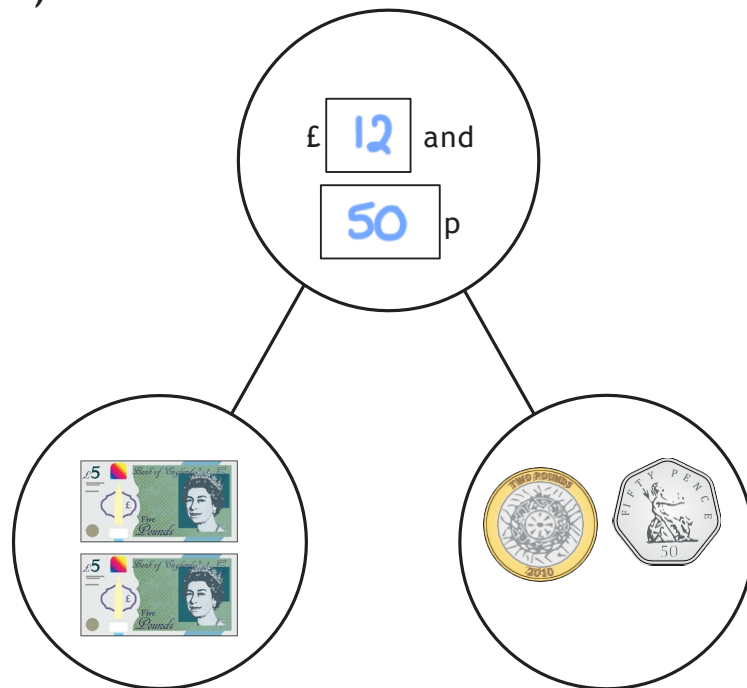
£1 £1 £1 50p 10p 1p

Compare answers with a partner.

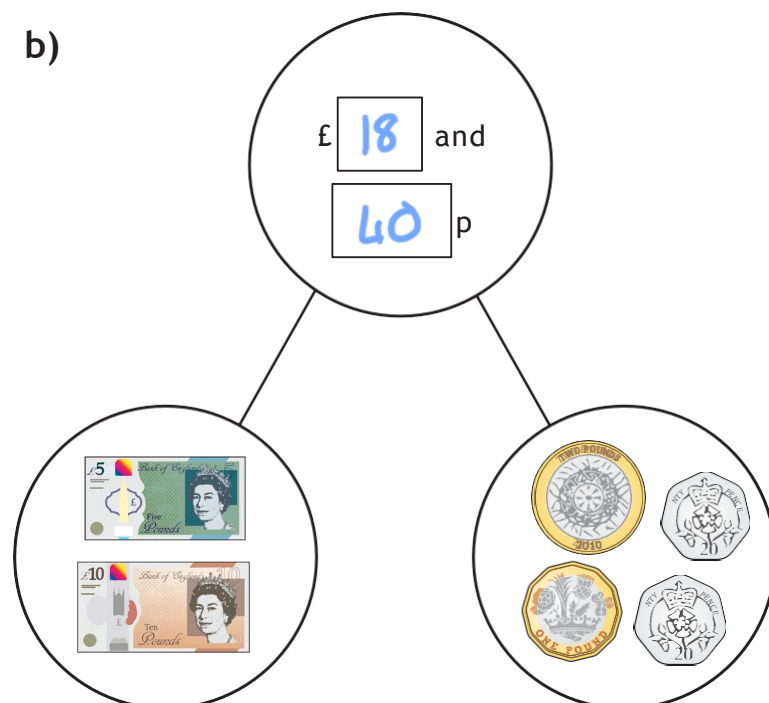
# Add money

1 Complete the part-whole models.

a)



b)



2 Dora buys two birthday cards.



Complete the sentences to show how much money Dora spends.

$$£ 2 + £ 2 = £ 4$$

$$20 \text{ p} + 15 \text{ p} = 35 \text{ p}$$

Dora spends £ 4 and 35 p.

3 Complete the number sentences.

a) £3 and 12p + £5 and 12p = £ 8 and 24 p

b) £3 and 30p + £5 and 30p = £ 8 and 60 p

c) £3 and 50p + £5 and 50p = £ 9 and 0 p


d) £4 and 50p + £5 and 50p = £ 10 and 0 p

What do you notice?

- 4 Brett has £6 and 55p.  
Aisha has £2 and 55p.  
How much money do they have altogether?

£ 9 and 10 p

- 5 Annie and Alex are having pizza for lunch.

Tomato pizza	£5 and 40p	
Vegetable pizza	£7 and 75p	
Potato wedges	£1 and 79p	
Cheese bites	£2 and 83p	

- a) Annie orders a tomato pizza and cheese bites.  
How much does it cost?

£ 8 and 23 p

- b) Alex has £10  
She wants to buy potato wedges and a vegetable pizza.  
Does she have enough money? Yes  
Explain your answer.

- 6 Mo buys a cap for £6 and 50p.  
He also buys a key ring.  
He spends £10 in total.  
How much does the key ring cost?



£ 3 and 50 p

- 7 Complete the bar models.

a)

£6 and 39p	
£2 and 99p	£3 and 40p

b)

£5 and 98p	
£1 and 99p	£3 and 99p

- 8 Eva has £6 to spend.



What can Eva buy?

Various answers.

Compare answers with a partner.