

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 308 is close to

My estimate for the number of people in total is

+ =

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

Was it a good estimate? How do you know?



2 Estimate the answer to $395 + 49$

395 is close to 49 is close to

My estimate is

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
$187 + 203 + 19$	$200 + 200 + 20 = 420$	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.

$200 + 100 + 200 + 50 = 550$ 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.

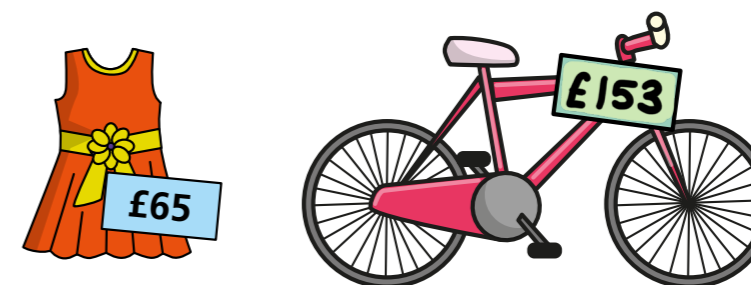
Can you pour two full glasses of juice? Give an estimate.

Explain your answer.



No $500\text{ml} + 500\text{ml} = 1,000\text{ml}$
 $813\text{ml} < 1,000\text{ml}$

- 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.

$£153$ is closer to $£150$ and $£65$ is closer to $£70$
 $£150 + £70 = £220$ so she has saved enough.