National Numeracy Tests

REASONING

8ER17

First name _____

Last name _____

School _____

Class _____

Date of birth ◯◯ ◯◯ ◯◯◯◯

Date of test ◯◯ ◯◯ 2017

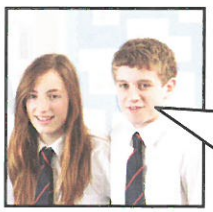
Total score ☐ (maximum 20)

150301

Llywodraeth Cymru
Welsh Government

1

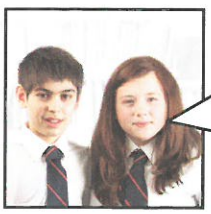
Price list		
	1 to 9	£2.15 each
	10 to 49	£1.99 each
	50 to 99	£1.70 each
	100 +	£1.39 each



We think we should buy 45 T-shirts.

Show why it would be cheaper to buy 50 T-shirts rather than 45

2m



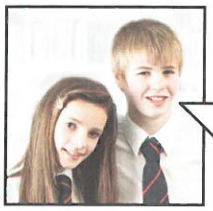
We think we should buy 60 T-shirts and sell them for £5 each.

If they buy 60 T-shirts, what is the smallest number of £5 T-shirts they must sell to make a profit?

T-shirts

2m

The group makes a decision.



We will buy 100 T-shirts.

We will sell them at £4.50 each, with 10% off in the first week.

They sell 60 T-shirts with 10% off,
and another 32 T-shirts at the full price of £4.50

How much profit do they make?

£ profit

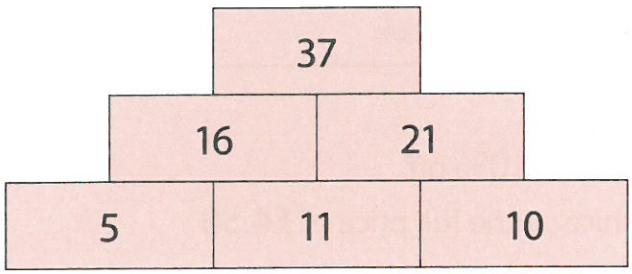
3m

TOTAL

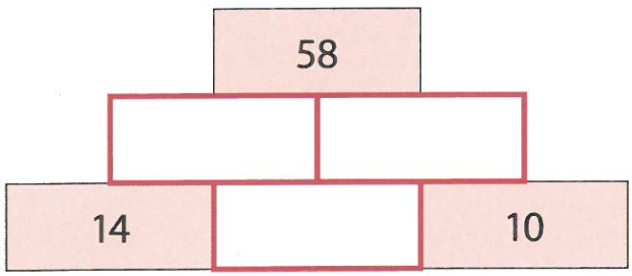
7m

2 Here is a number wall.

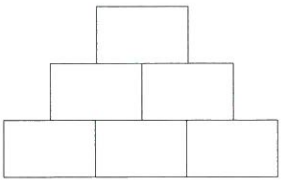
Each number is the sum of the two numbers directly below it.

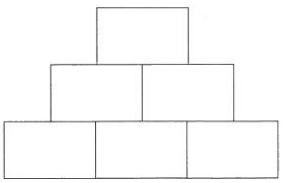


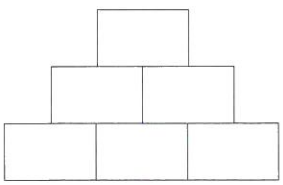
Work out the missing numbers in the number wall below.



Number walls (if you need them)







2m

3 Owen wants to add 2-digit numbers to make a 4-digit number.

What is the smallest amount of 2-digit numbers that he needs?

2m

4

	Total cost £14.50

	Total cost £35.75

Work out the cost of both items.

£

£

3m

TOTAL

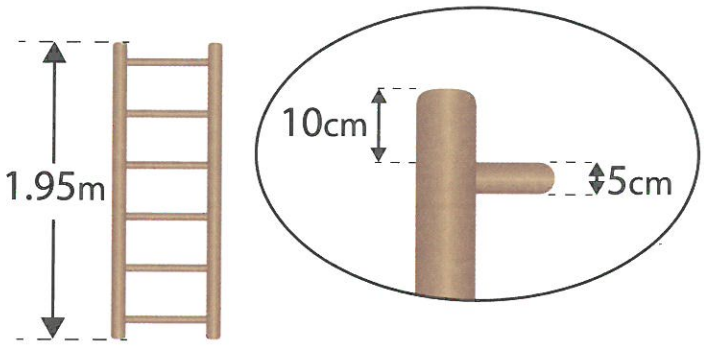
7m

5 Here is a wooden ladder with 6 steps.

The wood extends 10cm **above** the top step and 10cm **below** the bottom step.

Each wooden step is 5cm thick.

The height of the ladder is 1.95m.



The steps are all the same distance apart.

Work out how far apart they are.

cm

2m

6 A company sells mats. Examples:

2m by 3m mat	5m by 2m mat	4m by 3m mat
without border £300	without border £500	without border £600
with border £200 more	with border £280 more	with border £280 more

The company uses rules to find these costs.

The cost of a mat without a border is based on the **area** of the mat.

What is the rule?

2m

The extra cost for a border is based on the **perimeter** of the mat.

What is this different rule?

2m

TOTAL

6m

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