



Mathematics Challenge 2015

by

Children's Well-wishers Network (CWN)

YEAR 1

Mark Scheme

We provide mark schemes of our CWN Mathematics Challenge 2015 examination papers to help parents.

Please note that for some problems there are more than one possible answer.

Some questions are open ended.

We strongly advise all children to practise the papers and think hard before looking at the answers provided.

Full answers and explanations will be provided on our feedback sessions.

In general, we expect units, directions, sensible answers and reasons in all questions.

Q1) There are 4 **more** toys than teddies.



There are 18 teddies.

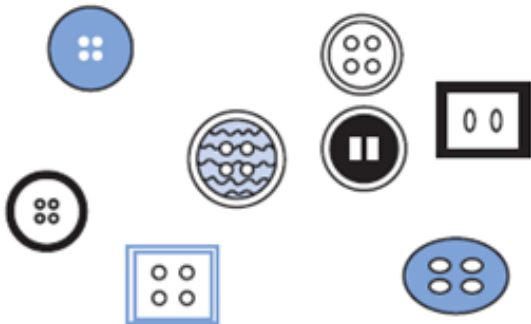
How many fewer teddies than toys are there?

4 teddies

(1 mark)

Q2)

Here we have a set of buttons.



If we need another similar set of buttons how many buttons do we need?

8 buttons.

(1 mark)

Q3) A box of chocolates costs £3.



You have £20.

Can you afford to buy 7 boxes of chocolates?

No

(1 mark)

Q4) Fill in the blanks to complete the sentences.

(a) 15 is more than **Many possible answers**

(b) 15 is 5 less than **20**

(c) 15 is 5 more than **10**

(3 marks)

Q5)

(a) What is the **difference** between ten and zero?

10
(1 mark)

(b) **Take away** zero from ten.

10
(1 mark)

(c) **Take** zero **away** from ten.

10
(1 mark)

(d) Ten **take away** zero.

10
(1 mark)

(e) **Take away** ten from zero.

Impossible (or - 10)
(1 mark)

(f) **Subtract** 0 from 10.

10
(1 mark)

Q6)

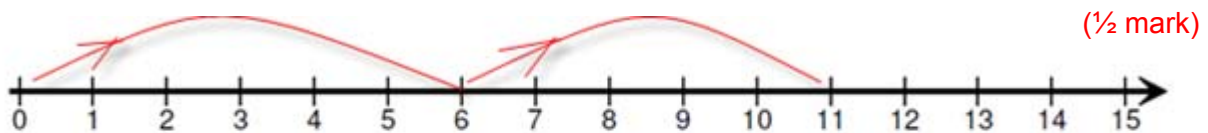
A box of chocolates costs £2 plus half its price.

How much does it cost?

Answer: **£4**
(1 mark)

Q7)

Draw **directed** hops to show the addition sentence and find the sum shown.












6 + **5** = **11** (½ mark)

(1 mark)

Q8) Each shape stands for a number.

The numbers shown are the totals of the line of three numbers in the row or column.

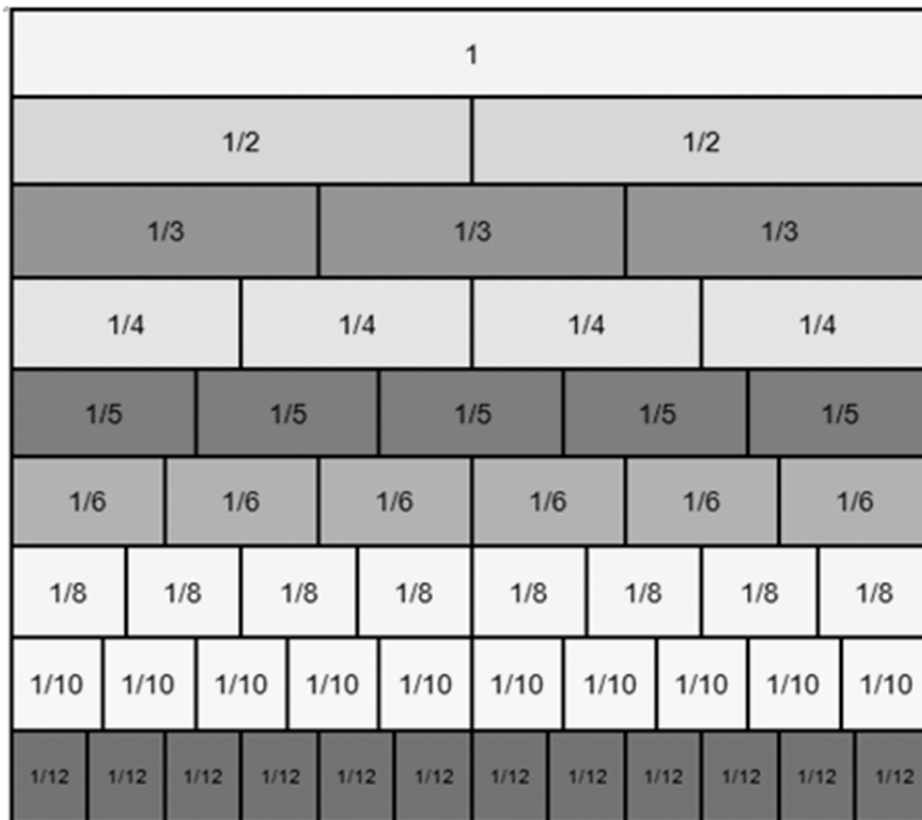
Find out which number each symbol represents and find the other totals.

			12
			14
			17
20	6	17	

$$\begin{array}{l}
 \text{heart} = 5 \\
 \text{triangle} = 2 \\
 \text{pentagon} = 10
 \end{array}$$

(5 marks)

Q9) This is a fraction wall.



(a) How many quarters are in one half?

2

(b) How much is half of £1?

50 p (or £ 0.50)

(c) What is half of half?

Quarter (or 1/4)

(3 marks)

Q10)



(a) How long is it from 10 o'clock to 2 o'clock?

4 hours (½ mark for 4)

(1 mark)

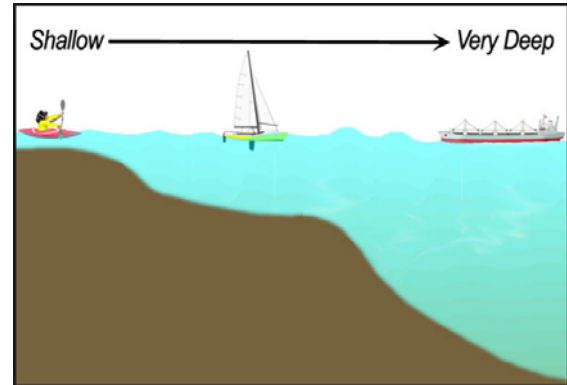
(b) The classroom is 16m long and the library is 12m long.

How much longer than the library is the classroom?

4 m (½ mark for 4)

(1 mark)

Q11) The very deep water depth is 20 km and the shallow water depth is 2 km.



Using the above picture estimate the depth of sailing boat.

around 10 km

(1 mark)

Q12)

(a) Write the **sum** of 12 and 9

21

(1 mark)

(b) Write the **total** of 12 and 9

21

(1 mark)

Q13) Crayons are sold in boxes of 10, rubbers in boxes of 5 and pencil sharpeners in boxes of 2.



(a) Raja wants 40 crayons.

How many boxes does he need to buy?

4 boxes of crayons
(1 mark)

(b) Rani needs 35 rubbers.

How many boxes does she need to buy?

7 boxes of rubbers
(1 mark)

(c) Rana needs 18 pencil sharpeners.

How many boxes does he need to buy?

9 boxes of sharpeners
(1 mark)

Q14) Fill in the blanks to complete the sentences.

(a) **Any number that is strictly more than 15** is more than 15

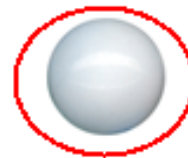
(b) **10** is 5 less than 15

(c) **20** is 5 more than 15

(3 marks)

Q15) Which items are shaped like a sphere?

Circle them.



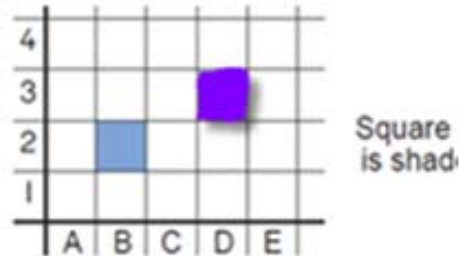
Award 1 mark only if both shapes are circled.

No half marks.

(1 mark)

Q16)

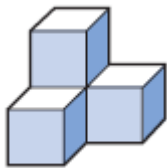
(a) Look at the grid.



Shade square D3.

(1 mark)

(b) Look at the following 2D version of 3D picture.



How many cubes have been piled up?

4

(1 mark)

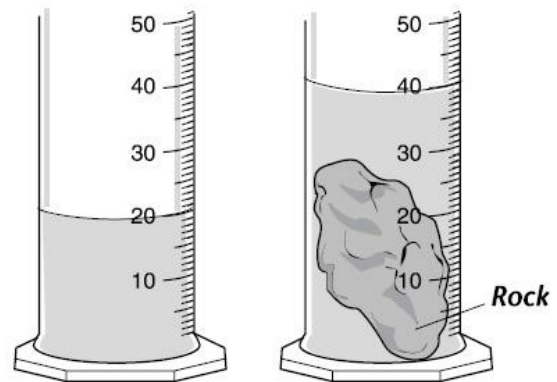
Q17) John wants to buy a pen for 51p. He gives £1 to the shopkeeper.

How much change will he receive?

49 pence

(1 mark)

Q18)



Both cylinders are identical and have the same volume of water.

The volume is scaled in millilitres (ml).

What is the volume of the rock?

20 ml (1/2 mark for 20)
(1 mark)

Q19) John wants to buy a sweet for 6p. He wants to pay for it **exactly**.



Which different set of coins could he use? (One answer: 5p + 1p). Order does not count.

Answer 1: **2p + 2p + 2p**

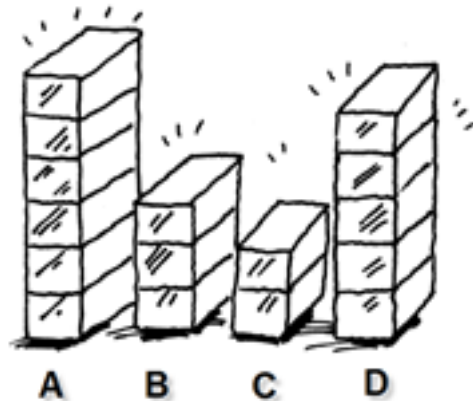
Answer 2: **2p + 2p + 1p + 1p**

Answer 3: **2p + 1p + 1p + 1p + 1p**

Answer 4: **1p + 1p + 1p + 1p + 1p + 1p**

(4 marks)

Q20)



There are 4 uneven piles of gold bars.

Mr Goldsmith wishes to make the piles even. He can make only two moves.

Could you help him?

Move 1:

Move 2 bars from pile A to pile C

Move 2:

Move 1 bar from pile D to pile B

(1 mark)

Q21) A Toyota car dealer sold the following type of cars in January 2015.

Model	Number of cars sold
iQ	67
AYGO	76
Yaris	72
Auris	66
Verso	77

(a) Which type of car was sold most?

Verso

(1 mark)

(b) Can you tell if more cars of the iQ model will be sold in February?

Circle your response:

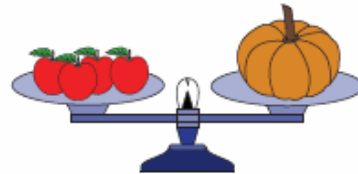
Yes **No** or **Can't predict**

(1 mark)

Q22)

(a) Which is heavier on the scale below:

An apple or a pumpkin?



Pumpkin

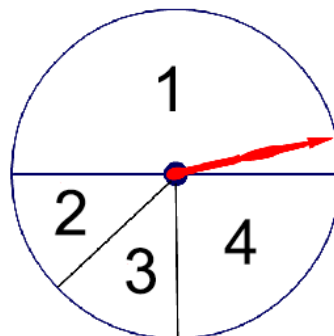
(1 mark)

(b) Complete the sentence:

The weight of **8** apples will balance the weight of 2 pumpkins.

(1 mark)

Q23) On which number is the spinner **more** likely to land?



Answer: **1**

(1 mark)

Q24) The table shows Sam’s “pay as you go” (PAYG) bus fares in 2013 and 2014.

Bus	2013	2014
PAYG single	£1.40	£1.45

How much more has Sam to spend if he makes 10 (single) journeys on a bus on 2014 than on 2013?

Answer: **50p**

(1 mark)

Q25) Write the **word** of the object in the right place using the clues:

Clue 1: The **boat** is on the middle shelf.

Clue 2: The **skipping rope** is on the top shelf.

Clue 3: The **car** is on the bottom shelf.

Clue 4: The **ball** is next to the boat.

Clue 5: The **teddy bear** is in between the boat and the car.



TOYS	
	skipping rope
	ball
	boat
	teddy bear
	car

(1 mark)