



Mathematics Challenge 2015

by

Children's Well-wishers Network (CWN)

YEAR 1

45 minutes

Do **NOT** open this booklet until instructed

Calculators must **NOT** be used



- Write your **name** and **candidate number** in the spaces provided at the top of the page.
- You have **45** minutes for this paper which is worth **50** marks.
- Write your answers in **pencil**. Do **NOT** use a pen.
- Answer **all** 25 questions, attempting them in order and writing your answers clearly.
- If you find that you cannot answer a question straight away leave it blank and move on to the next question. Return to it later if you have time.
- Wherever applicable answers should carry units.
- Scrap paper is available on request.

For Examiner's use only	
Question No.	Score
Q1	/ 1
Q2	/ 1
Q3	/ 1
Q4	/ 3
Q5	/ 6
Q6	/ 1
Q7	/ 1
Q8	/ 5
Q9	/ 3
Q10	/ 2
Q11	/ 1
Q12	/ 2
Q13	/ 3
Q14	/ 3
Q15	/ 1
Q16	/ 2
Q17	/ 1
Q18	/ 1
Q19	/ 4
Q20	/ 1
Q21	/ 2
Q22	/ 2
Q23	/ 1
Q24	/ 1
Q25	/ 1
Total	/ 50

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



There are 18 teddies.

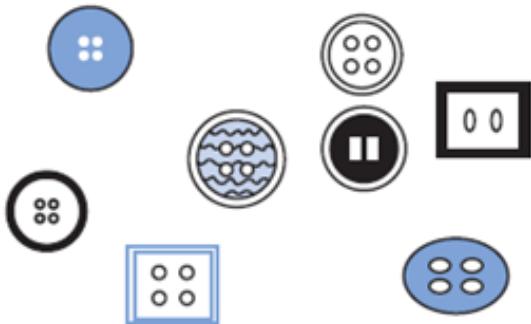
How many fewer teddies than toys are there?

_____ 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?

_____ buttons.

(1 mark)

Q3) A box of chocolates costs £3.



You have £20.

Can you afford to buy 7 boxes of chocolates?

(1 mark)

Q4) Fill in the blanks to complete the sentences.

(a) 15 is more than _____

(b) 15 is 5 less than _____

(c) 15 is 5 more than _____

(3 marks)

Q5)

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

_____ (1 mark)

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

_____ (1 mark)

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

_____ (1 mark)

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

_____ (1 mark)

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

_____ (1 mark)

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

_____ (1 mark)

Q6)

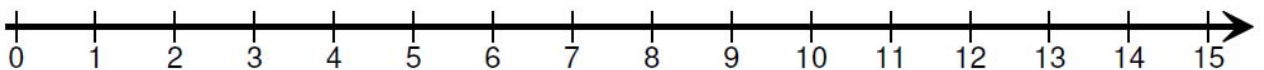
A box of chocolates costs £2 plus half its price.

How much does it cost?

Answer: _____ (1 mark)

Q7)

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












6 + 5 =




(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.

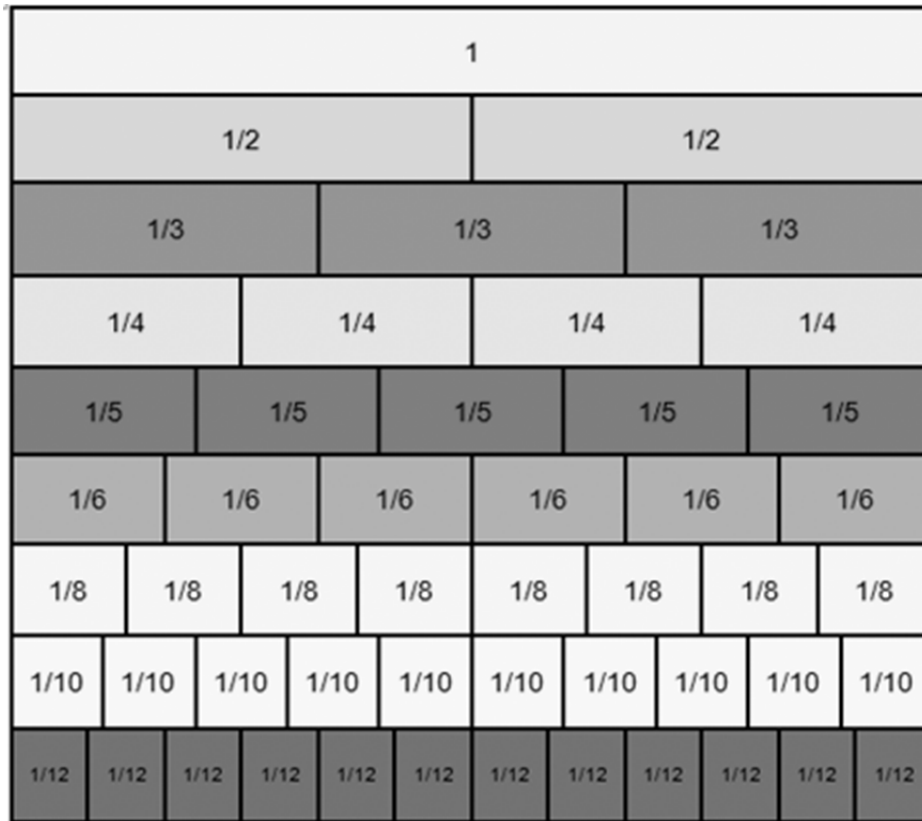
Find out which number each symbol represents and find the other totals.

			<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">12</div>
			<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">14</div>
			<div style="border: 1px solid black; width: 40px; height: 40px;"></div>
<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">20</div>	<div style="border: 1px solid black; padding: 5px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">6</div>	<div style="border: 1px solid black; width: 40px; height: 40px;"></div>	

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(5 marks)

Q9) This is a fraction wall.



(a) How many quarters are in one half?

(b) How much is half of £1?

(c) What is half of half?

(3 marks)

Q10)



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

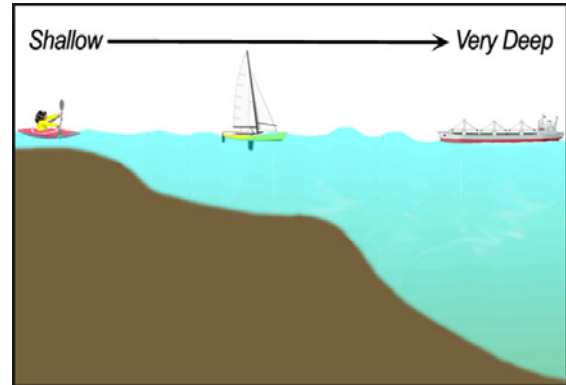
(1 mark)

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

How much longer than the library is the classroom?

(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.

(1 mark)

Q12)

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

(1 mark)

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

(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?

(1 mark)

(b) Rani needs 35 rubbers.

How many boxes does she need to buy?

(1 mark)

(c) Rana needs 18 pencil sharpeners.

How many boxes does he need to buy?

(1 mark)

Q14) Fill in the blanks to complete the sentences.

(a) _____ is more than 15

(b) _____ is 5 less than 15

(c) _____ is 5 more than 15

(3 marks)

Q15) Which items are shaped like a sphere?

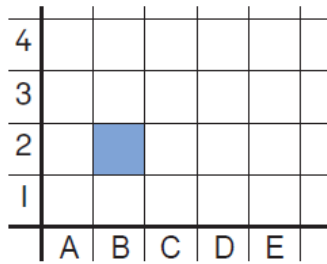
Circle them.



(1 mark)

Q16)

(a) Look at the grid.

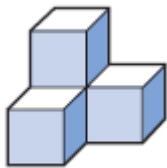


Square B2 is shaded

Shade square D3.

(1 mark)

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



How many cubes have been piled up?

(1 mark)

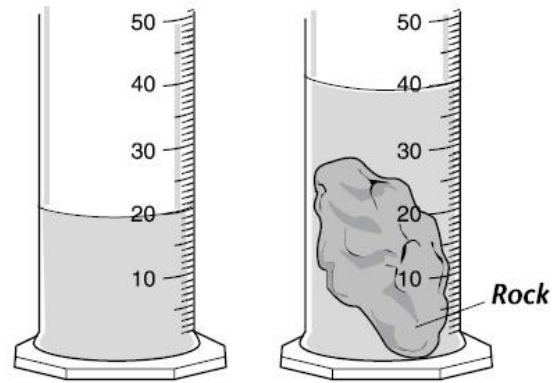
Q17) John wants to buy a pen for 51p. He gives £1 to the shopkeeper.

How much change will he receive?

_____ 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?

(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: _____

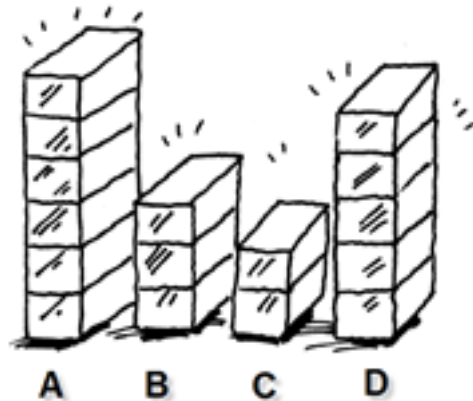
Answer 2: _____

Answer 3: _____

Answer 4: _____

(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 _____ bars from pile

_____ to pile _____.

Move 2:

Move _____ bars from pile

_____ to pile _____.

(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?

(1 mark)

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

Circle your response:

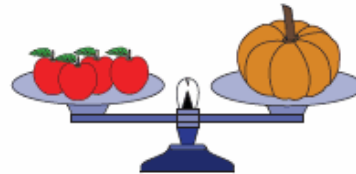
Yes **No** **Can't predict**

(1 mark)

Q22)

(a) Which is heavier on the scale below:

An apple or a pumpkin?



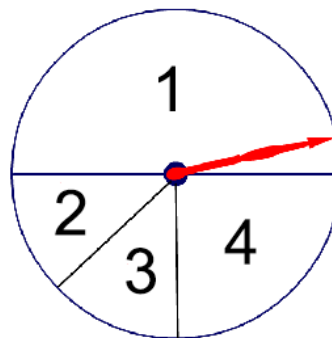
(1 mark)

(b) Complete the sentence:

The weight of _____ apples will balance the weight of 2 pumpkins.

(1 mark)

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



Answer: _____

(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: _____

(1 mark)

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

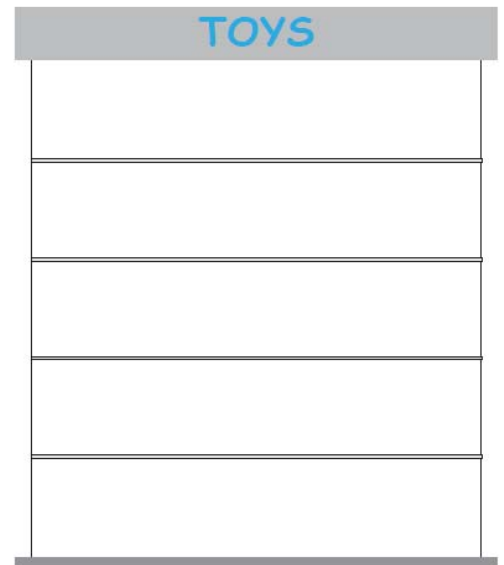
Clue 1: The **boat** is on the middle shelf.

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.



(1 mark)