Reasoning

Mark :   /20   %

1) Put the numbers in the correct positions in the Carroll Diagram: [1]
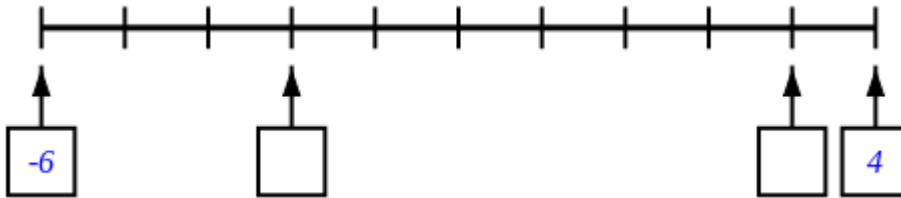
20   15   17   12

	multiple of 5	not a multiple of 5
multiple of 2		
not a multiple of 2		

2) Write in the missing numbers   [1]
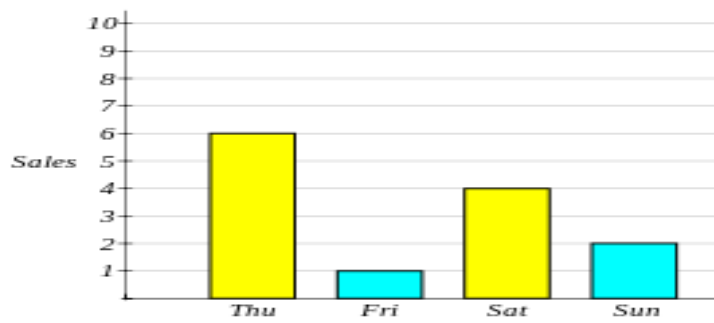
-6   □   □   4

3) Write down the digit that means **hundredths** in 0.35   □   [1]
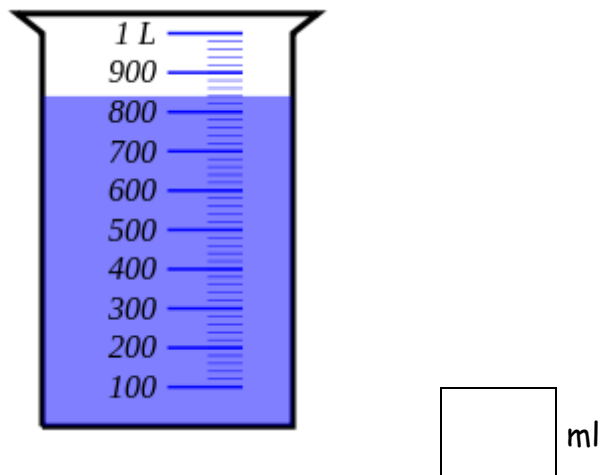
4) The bar graph shows the number of scooters a store sold in the last 4 days.   [1]

How many scooters did they sell altogether? ☐ scooters

5) Find the amount of liquid in the container in millilitres.   [1]

☐ ml

6) Order the numbers below from smallest to largest   [1]

0.86   0.812   0.873   0.89   0.8

☐   ☐   ☐   ☐   ☐

smallest   largest

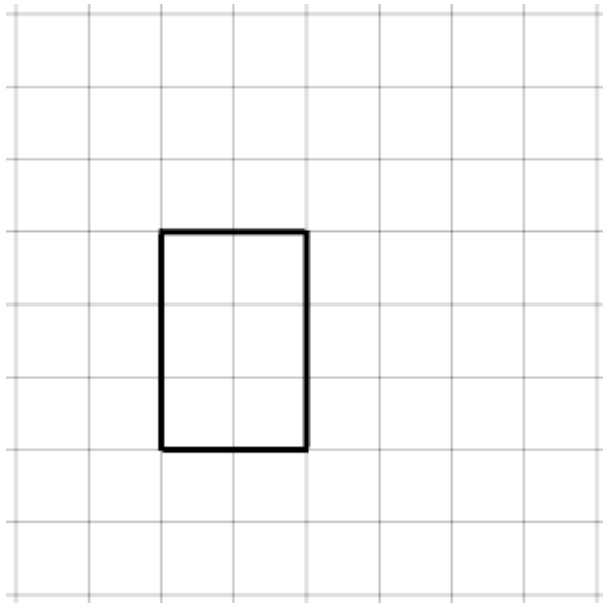**7)** Write the number in words   [1]

64158 [   ]

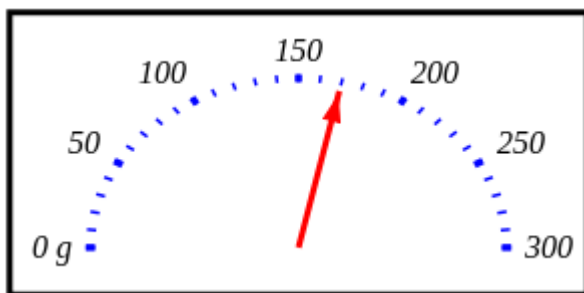**8)** Translate the shape 2 boxes to the right and 3 boxes up.   [1]

9) The weighing scales show the mass of a pineapple.   [1]

How much do 11 pineapples weigh? [   ] kg

10) Two shops, A and B, both sell bouncy balls. [1]

Shop A
bouncy balls
8 for 64p

Shop B
bouncy balls
5 for 45p

At which shop are the bouncy balls the best value for money?
Show all your working below.

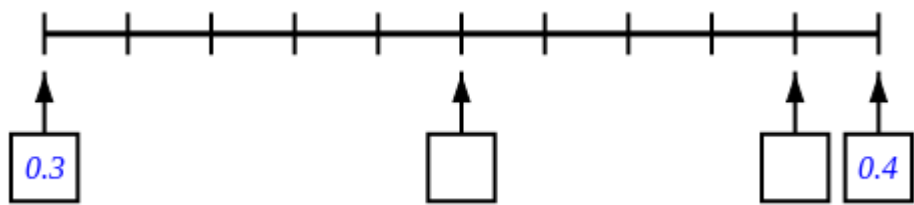**11)** Complete the magic square so that all rows, columns and diagonals have the same total. [1]

17		18
13	12	
		7

12) $1.469 +$ ☐ $= 10$ [1]

13) Select the correct inequality (< or >) to make a true statement [1]

$\frac{5}{12}$ ☐ $\frac{4}{9}$

14) Write in the missing numbers [1]

0.3 ☐ ☐ 0.4

15) Complete the table to show the properties of 4 shapes. [1]

Shape	Number of sides	Number of right angles	Regular shape? (yes or no)
	4	0	yes

16) I'm thinking of a number. I take away 2 and then halve the result. The answer is 12. [1]

What is the number I am thinking of? ☐

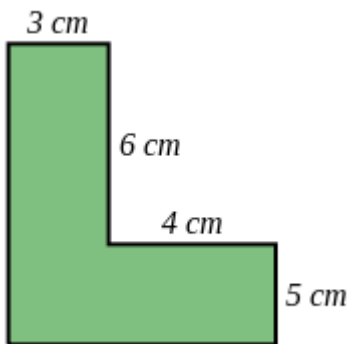**17)** Calculate the percentage of the bar that is shaded. ☐ % [1]

18) A recipe requires 5 cups of flour to make 7 cookies. [1]

How many cups of flour will be needed to make 28 cookies?

☐ cups of flour

19) Here is a figure made of two rectangles. [1]

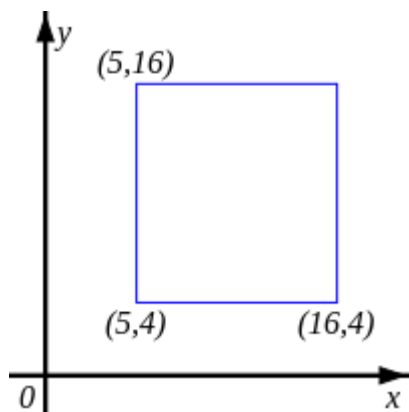*3 cm*

6 cm

4 cm

5 cm

(a) What is the **perimeter** of the figure? ☐ cm

(b) What is the **area** of the figure? ☐ cm^2

(c) How much greater is the area of the figure than its

perimeter? ☐

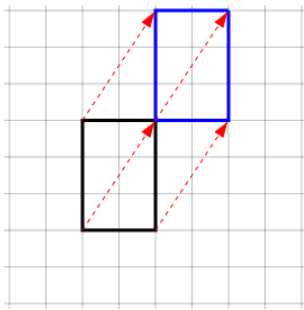**20)** What are the coordinates of the missing corner of the rectangle?   [1]

y

(5,16)

(5,4)   (16,4)

0   x

The coordinates are (☐ , ☐)

Solutions for the assessment KS2 NC Test - Paper 3 Reasoning

1)
20 , 12
15 , 17

2) missing numbers are -3 and 3

3) 5

4) 13

5) Amount = 840 ml

6) 0.8, 0.812, 0.86, 0.873, 0.89

7) sixty-four thousand, one hundred and fifty-eight

8)

9) 1.87 kg

10) 64 ÷ 8 = 8p
45 ÷ 5 = 9p
8 is less than 9, so shop A is cheaper

11)
17 **1** 18
13 12 **11**
6 23 7

12) 8.531

13) $\frac{5}{12} < \frac{4}{9}$

14) missing numbers are 0.35 and 0.39

15) 4, 1, no
4, 0, no
4, 0, no

16) 26

17) 40 %

18) 20 cups of flour

19) Perimeter = 36 cm, Area = 53 cm^2, Difference = 17

20) (16,16)