



## Numeracy Entry Sample Test Section 1 – Number and Data Handling

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Put the letter corresponding to your answer in the space provided. Write your choice of answer clearly. If you change your mind, cross out the incorrect answer clearly and insert the correct answer.

Use the space allocated for the question for working. Scrap paper for additional working may be used.

You may not use a calculator.

Name \_\_\_\_\_

Date \_\_\_\_\_

Mark awarded out of 15 \_\_\_\_\_

The above text will be on the front page of the real test which has 15 questions in this section. This sample has **five** questions typical of those to be found in this section.

Topics you should study for this section include:

Comparing fractions;

Finding a percentage reduction or increase;

Using proportional reasoning to increase or decrease quantities;

Properties of numbers such as prime numbers, multiples, factors, square numbers, powers and negative numbers;

Finding the mean, median and mode of a set of data;

Constructing pie charts;

Simple probabilities based upon dice, cards etc.;

Venn diagrams.

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1 Which of these fractions is closest in value to one third?

a)  $\frac{5}{12}$

b)  $\frac{7}{18}$

c)  $\frac{21}{60}$

d)  $\frac{31}{90}$

answer \_\_\_\_\_

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2 A prime number has exactly 2 factors. Which of these is a prime number?

a) 123

b) 119

c) 129

d) 127

answer \_\_\_\_\_

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3 When  $4^3$  is added to  $3^4$  the result is:

a) 77

b) 145

c) 24

d) 91

answer \_\_\_\_\_

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4 In a class of 24 pupils, 10 travel to school by car. To represent this data on a pie chart, the angle needed in the slice of pie is:

a)  $150^\circ$

b)  $15^\circ$

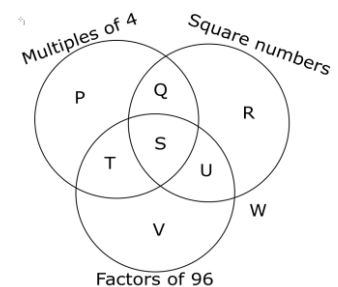
c)  $100^\circ$

d)  $135^\circ$

answer \_\_\_\_\_

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5 In the Venn Diagram on the right numbers can be placed in one of the eight regions, P, Q, R, S, T, U, V or W, according to the properties of the number.



The number 36 is to be placed in region:

a) Q

b) R

c) S

d) T

answer \_\_\_\_\_

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## Numeracy Entry Test Section 2 – Shape, Space and Measures

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Put the letter corresponding to your answer in the space provided. Write your choice of answer clearly. If you change your mind, cross out the incorrect answer clearly and insert the correct answer.

Use the space allocated for the question for working. Scrap paper for additional working may be used.

You may not use a calculator.

Name \_\_\_\_\_

Date \_\_\_\_\_

Mark awarded out of 15 \_\_\_\_\_

The above text will be on the front page of the real test which has 15 questions in this section. This sample has **five** questions typical of those to be found in this section.

Topics you should study for this section include:

Metric conversions for mass and length;

Conversion between metric and imperial measures;

Analogue and digital time;

The Theorem of Pythagoras;

Finding angles in a regular polygon;

Calculating the area of triangles and compound shapes;

Properties of polyhedra, such as the number of faces, vertices or edges;

Temperature conversion between Celsius and Fahrenheit;

Calculation of radius, diameter, circumference and area using  $\pi$ ;

Estimation of the mass, length, area or volume of familiar objects.

1 What is 5370mm in metres?

- a) 0.537m                      b) 0.5037m                      c) 53.7m                      d) 5.37m

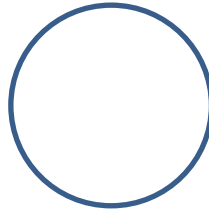
answer \_\_\_\_\_

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2 When the large hand of a clock moves clockwise from the 6 to the 1 it turns through an angle of:

- a)  $180^\circ$                       b)  $210^\circ$                       c)  $150^\circ$                       d)  $35^\circ$

This circle may help you.



answer \_\_\_\_\_

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3 A right-angled triangle has sides 5 cm, 12 cm and 13 cm. Its area is:

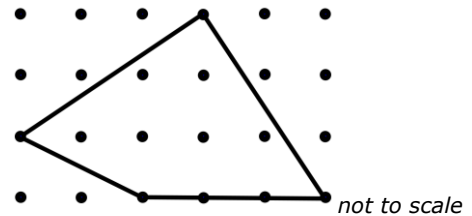
- a)  $30\text{cm}^2$                       b)  $15\text{cm}^2$                       c)  $60\text{cm}^2$                       d)  $10\text{cm}^2$

answer \_\_\_\_\_

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4 This diagram shows a quadrilateral drawn on a 1cm by 1cm grid of dots.

Calculate the area of this quadrilateral.



- a)  $8\text{ cm}^2$                       b)  $10\text{ cm}^2$                       c)  $9\text{ cm}^2$                       d)  $7\text{ cm}^2$

answer \_\_\_\_\_

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5 To convert between miles and kilometres the relationship of 5 miles is approximately 8 kilometres is sometimes used.

With this conversion 40 kilometres is:

- a) 25 miles                      b) 40 miles                      c) 60 miles                      d) 64 miles

answer \_\_\_\_\_

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## Numeracy Entry Test Section 3 – Using Mathematics in Context

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Answer each question. You may use any method to work out the answer.

The questions in this section test your ability to apply mathematics in context. You will be required to read and interpret data, to apply mathematical judgement and to use an understanding of measurement, proportion and ratio.

The questions in this section are longer than those in Sections 1 and 2 and some of them carry two marks, as shown where the answer is filled in.

You will need to refer to the accompanying page of charts when answering some of the questions.

Name \_\_\_\_\_

Date \_\_\_\_\_

Mark awarded out of 20 \_\_\_\_\_

The above text will be on the front page of the real test, which has 20 questions in this section. This sample has **five** questions (one of which carries two marks) typical of those to be found in this section.

Topics you should study for this section include:

Interpreting data held in tables from sources such as railway timetables, holiday brochures, food labels and sales figures.

Using imperial and metric measures in context.

Identifying 'good value' when offers and discounts are applied to products

Using percentages and fractions and ratio in context.

- 1 This question using the following information:  
One pound (1 lb) is 16 ounces (16 oz).  
One kilogram (1 kg) is approximately 2.2 lbs.

Identify which two of the following statements are correct.

- a) One pound is approximately 450g
- b) One hundred grams is about 2.2 oz.
- c) One ounce is about 22g
- d) One kilogram is approximately 35 ounces.
- e) One third of a kilogram is little less than half a pound .

(2 marks) The two correct statements are \_\_\_\_\_ and \_\_\_\_\_

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- 2 Packets of chocolate finger biscuits normally sell for £1.20 for a packet of 10.  
They currently have a 'buy one get one free' offer on them. How much will I need to spend to get 50 chocolate finger biscuits?

- a) £4.80                      b) £6.00                      c) £3.60                      d) £3.00

answer \_\_\_\_\_

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The table below will be used for questions 3 to 5 in this paper.

This table shows the number of packets of crisps sold by a small shop during one week.

	<b>Ready Salted</b>	<b>Cheese &amp; Onion</b>	<b>Salt &amp; Vinegar</b>	<b>Smoky Bacon</b>	<b>Total</b>
<b>Monday</b>	15	11	12	7	<b>45</b>
<b>Tuesday</b>	8	6	5	4	<b>23</b>
<b>Wednesday</b>	16	12	9	5	<b>42</b>
<b>Thursday</b>	9	5	8	3	<b>25</b>
<b>Friday</b>	10	7	6	4	<b>27</b>
<b>Total</b>	<b>58</b>	<b>41</b>	<b>40</b>	<b>23</b>	<b>162</b>

3 The ratio of 'Ready Salted' sales to 'Cheese & Onion' sales is highest on:

- a) Tuesday                      b) Wednesday                      c) Thursday                      d) Friday

answer \_\_\_\_\_

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4 What percentage of the 'Salt & Vinegar' sales occurred on Monday?

- a) 12%                      b) 25%                      c) 24%                      d) 30%

answer \_\_\_\_\_

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5 The shop keeper orders 1000 bags of crisps from her supplier. On the evidence of this week's sales approximately how many packets of 'Cheese and Onion' should she order?

- a) 250                      b) 41                      c) 82                      d) 410

answer \_\_\_\_\_