HLTA National Assessment Partnership

Numeracy Entry Sample Test
Section 1 – Number and Data Handling

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.

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°   b) 15°   c) 100°   d) 135°
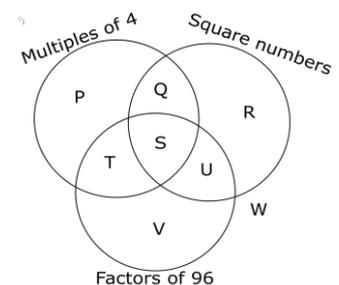
                                                           answer _____

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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

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 π;
Estimation of the mass, length, area or volume of familiar objects.
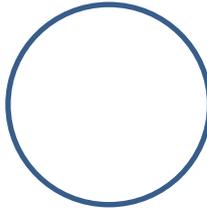
1 What is 5370mm in metres?

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°   b) 210°   c) 150°   d) 35°
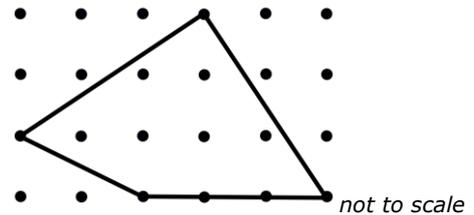
This circle may help you.

answer _____

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

a) 30cm^2 b) 15cm^2 c) 60cm^2 d)10cm^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.

not to scale

a) 8 cm^2 b) 10 cm^2 c) 9 cm^2 d) 7 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

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 _____

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 _____

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.

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

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

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

answer _____

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

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

answer _____

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 _____