

Tables for determining National Curriculum Levels from MEP Year 8 Diagnostic Test Results (Academic)

Diagnostic Test A

Level 5 : $11 \leq \text{Mark} < 26$	Level 6 : $26 \leq \text{Mark} < 42$	Level 7 : $\text{Mark} \geq 42$
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Diagnostic Test B

Below Level 6 : $\text{Mark} < 30$	Level 6 : $30 \leq \text{Mark} < 43$	Level 7 : $\text{Mark} \geq 43$
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Diagnostic Test C

Level 5 : $9 \leq \text{Mark} < 31$	Level 6 : $31 \leq \text{Mark} < 43$	Level 7 : $\text{Mark} \geq 43$
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Diagnostic Test D

Level 5 : $20 \leq \text{Mark} < 33$	Level 6 : $33 \leq \text{Mark} < 46$	Level 7 : $\text{Mark} \geq 46$
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Diagnostic Test E

Level 5 : $20 \leq \text{Mark} < 33$	Level 6 : $33 \leq \text{Mark} < 43$	Level 7 : $\text{Mark} \geq 43$
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Diagnostic Test F

Level 5 : $25 \leq \text{Mark} < 65$	Level 6 : $65 \leq \text{Mark} < 87$	Level 7 : $\text{Mark} \geq 87$
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The remainder of this document details the National Curriculum attainment target and level for each question in each of the Year 8 Diagnostic Tests (Academic Route).

Level 5 : 11 ≤ Mark < 26	Level 6 : 26 ≤ Mark < 42	Level 7 : Mark ≥ 42
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Chapter	Number	Question	Attainment Target	Level
1.4	1	Finding the shortest route in a network	-	-
1.3	2	Inputting numbers into a function machine	2	6
2.2	3	Drawing factor trees and writing numbers as a product of their prime factors	2	6
2.4	4	Listing factors of numbers and finding the Highest Common Factor	2	6
2.4	5	Listing multiples of numbers and finding the Lowest Common Multiple	2	5/6
3.2	6	Finding the longest side in a right angled triangle	3	7
3.4	7	Using Pythagoras to show that the triangle does not contain a right angle	3	7
3.4	8	Finding the perimeter of a triangle using Pythagoras	3	7
4.3	9	Order of operations	2	5
4.5	10	Rounding numbers to decimal places and significant figures	2	5/6
4.6	11	Estimating the area of a rectangle by rounding the dimensions	2/3	5
4.2	12	Money problems	2	5

Attainment Target	Questions	Levels
Number & Algebra 2	2,3,4,5,9,10,11,12	6,6,6,5/6,5,5/6,5,5
Shape, Space & Measure 3	6,7,8,11	7,7,7,5
Statistics 4		
Non NC material	1	

Below Level 6 : Mark < 30	Level 6 : $30 \leq \text{Mark} < 43$	Level 7 : Mark ≥ 43
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Chapter	Number	Question	Attainment Target	Level
2.2	1	Drawing factor trees and writing a number as a product of its primes	2	6
3.4	2	Using Pythagoras to find the perimeter of a triangle	3	7
4.3	3	Order of operations	2	5
4.5	4	Rounding numbers to 2 decimal places or significant figures	2	5/6
5.2	5	Calculating measures of central tendency and spread for a frequency table	4	6
6.4	6	Drawing a net of a cuboid and calculating its area	3	6
6.2	7	Drawing a cuboid on isometric paper	3	6
6.5	8	Drawing the plan and elevation of a prism	3	6
7.1	9	Simplifying a ratio	2	5
7.4	10	Converting money using the unitary method	2	5
7.3	11	Sharing an amount into different proportions	2	6
	12	Using a map scale	3	6
8.1	13	Operations with directed numbers	2	6
8.2	14	Solving equations	2	6
8.3	15	Factorising	2	7
8.4	16	Expanding Brackets	2	7

Attainment Target	Questions	Levels
Number & Algebra 2	1,3,4,9,10,11,13,14,15,16	6,5,5/6,5,5,6,6,6,7,7
Shape, Space & Measure 3	2,6,7,8,12	7,6,6,6,6
Statistics 4	5	6

Level 5 : 9 ≤ Mark < 31	Level 6 : 31 ≤ Mark < 43	Level 7 : Mark ≥ 43
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Chapter	Number	Question	Attainment Target	Level
2.2	1	Drawing a factor tree and writing the number as a product of its prime factors	2	6
5.2	2	Calculating averages from a frequency table	4	6
6.4	3	Drawing the net of a cuboid	3	6
8.2	4	Solving equations	2	6
9.1	5	Multiplication and Division with fractions	2	7
9.1	6	Fractions of amounts	2	5
9.3	7	Writing a percentage as a fraction in its simplest form	2	5
9.3	8	Writing a fraction as a percentage	2	6
9.4	9	Finding a percentage of an amount	2	5
9.5	10	Finding the percentage remaining	2	6
10.2	11	Calculating probabilities with two dice	4	6
10.4	12	Completing probability tree diagrams	4	7
11.1	13	Measuring and naming angles	3	5
11.1	14	Angles in turns	3	4
11.2	15	Calculating angles on lines and around points	3	5/6
11.4	16	Measuring Bearings	3	6/7

Attainment Target	Questions	Levels
Number & Algebra 2	1,4,5,6,7,8,9,10	6,6,7,5,5,6,5,6
Shape, Space & Measure 3	3,13,14,15,16	6,5,4,5/6,6/7
Statistics 4	2,11,12	6,6,7

Level 5 : 20 ≤ Mark < 33	Level 6 : 33 ≤ Mark < 46	Level 7 : Mark ≥ 46
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Chapter	Number	Question	Attainment Target	Level
2.2	1	Writing a number as a product of its prime factors	2	6
9.1	2	Multiplying Fractions	2	7
9.1	3	Finding a fraction of an amount	2	5
9.4	4	Finding a percentage of an amount	2	5
10.2	5	Probabilities associated with throwing two dice	4	6
11.2	6	Calculating angles on lines and around points	3	5/6
12.1	7	Substituting positive and negative numbers into a formula	2	7
8.1	8	Operations with positive and negative numbers	2	5/6
8.2	9	Solving equations with ()'s	2	6/7
13.1	10	Money Problems	2	5
13.2	11	Changing 12 to 24 hour clock	3	3
13.2	12	Changing 24 to 12 hour clock	3	3
13.3	13	Calculating the length of a journey	3	4
13.2	14	Calculating the finishing time of a journey	3	5
13.3	15	Calculating the rate of pay	2	5
14.1	16	Plotting co-ordinates in 4 quadrants	3	5
14.5	17	Finding the equation of a line between two points	3	6
14.5	18	Finding the equation of a line from a graph	3	7

Attainment Target	Questions	Levels
Number & Algebra 2	1,2,3,4,7,8,9,10,15	6,7,5,5,7,5/6,6/7,5,5
Shape, Space & Measure 3	6,11,12,13,14,16,17,18	5/6,3,3,4,5,5,6,7
Statistics 4	5	6

Level 5 : 20 ≤ Mark < 33	Level 6 : 33 ≤ Mark < 43	Level 7 : Mark ≥ 43
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Chapter	Number	Question	Attainment Target	Level
9.1	1	Subtracting Fractions	2	6
9.4	2	Finding a percentage of an amount	2	5
11.2	3	Finding angles on a line	3	5
8.1	4	Subtraction of negative numbers	2	5/6
12.2	5	Solving equations	2	6
13.2	6	Finding the arrival time for a journey	3	4
13.3	7	Calculating the rate of pay	2	5
12.1	8	Substitution into a formula	2	7
14.5	9	Finding the equation of a line given two points	2	7
15.3	10	Drawing lines of symmetry and stating the order of rotational symmetry	3	5
15.2	11	Angle properties of polygons	3	6
16.4	12	Area and circumference of circles	3	5/6
16.6	13	Calculating the volume of a cylinder	3	7
17.2	14	Metric conversions (Length)	3	5
17.2	15	Metric conversions (Mass, Capacity)	3	5
17.4	16	Converting imperial to metric units	3	5

Attainment Target	Questions	Levels
Number & Algebra 2	1,2,4,5,7,8,9	6,5,5/6,6,5,7,7
Shape, Space & Measure 3	3,6,10,11,12,13,14,15,16	5,4,5,6,6,5/6,7,5,5,5
Statistics 4		

Level 5 : 25 ≤ Mark < 65	Level 6 : 65 ≤ Mark < 87	Level 7 : Mark ≥ 87
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Chapter	Number	Question	Attainment Target	Level
19.1	1	Finding the enlarged shape and the scale factor of enlargement.	3	5
19.1	2	Enlarging a shape by a scale factor	3	6
19.1	3	Finding the area of a shape after a scale factor enlargement	3	6
5.1	4	Drawing a vertical line graph and pie chart from a frequency table	4	3/6
1.3	5	Using a flow chart	3	6
2.3	6	Working with indices	2	7
2.4	7	Finding the HCF	2	5/6
3.2/3.3	8	Finding the side lengths of a right angled triangle using Pythagoras	3	7
4.1	9	Order of operations	2	5
4.5	10	Rounding to 2 decimal places and 2 significant figures	2	5/6
13.1	11	Money problems	2	4
5.2	12	Finding the Mean, Mode, Median and Range for a frequency table	4	6
6.4	13	Drawing the net of a cuboid	3	6
7.1	14	Writing a ratio in its simplest form	2	5
7.3	15	Sharing an amount in a set ratio	2	6
19.4	16	Using map scales	2	5
8.1	17	Operations with directed numbers	2	5/6
8.2	18	Solving equations with () 's	2	6
	19	Factorising	2	7
9.1	20	Finding a fraction and a % of an amount	2	5
9.5	21	Calculating % reductions	2	6
10.2	22	Probabilities of throwing 2 dice	4	6
11.3	23	Calculating Bearings	3	6
12.1	24	Substitution into a formula	2	6
12.2	25	Solving equations with x on one side	2	6
13.2	26	Time problems	3	4
13.3	27	Money problems	2	5
14.5	28	Finding the equation of a line between two points	2	7
15.3	29	Line and Rotational symmetry	3	5
15.3	30	Lines of symmetry on a regular polygon	3	4
16.2	31	Calculating the circumference of a circle	3	6
17.2	32	Metric conversions	3	5
18.2	33	Speed, Distance, Time problems	3	7

Attainment Target	Questions	Levels
Number & Algebra 2	6,7,9,10,11,14,15,16,17,18,19,20,21,24,25,27,28	7,5/6,5,5/6,4,5,6,5,5/6,6,7,5,6,6,6,5,7
Shape, Space & Measure 3	1,2,3,5,8,13,23,26,29,30,31,32,33	5,6,6,6,7,6,6,4,5,4,6,5,7
Statistics 4	4,12,22	3/6,4,6