Level 1 Test – Knowledge

Name . . . . . .

60 minutes Non-calculator Scribbling paper allowed

Put marks or ticks in the right column. Multiply total by 1.23 (round up) to get a score /48

Score: /39 × 1.23 = /48

Number		
Q1	Write Four hundred and twenty billion, fifty nine thousand and six as a numeral.	/1
Q2	List the factors of 20.	/1
Q3	Write the two meanings of $^4/_9$.	/2
Q4	Write $2\frac{3}{4}$ as an improper fraction and as a percentage.	/2
Q5	Draw a number line showing the positions of 0, 3 and –5.	/1
Q6	256.2 ÷ 5.133 is closest to: (circle one) 5 20 50 200 500	/1
Q7	Express 120 as a product of powers of prime numbers.	/1
Q8	What is ½ of $^3/_5$?	/1
Q9	Find 12 + (8 – 6 ÷ 2) × 3	/1

Algebra

Q10 Present this relation as a graph: /2

Age	0	1	2	3	4	5
Number of teeth	0	8	14	16	16	20

Q11 Which is the dependent variable in the relation above? /1

Q12 Can the relation above be expressed as a formula? /1

Q13 If fare = \$4.50 + distance (in km) × \$3, find the fare to go 6 km. /1

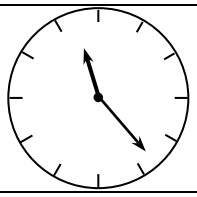
Q14 In the relation above, how far can you go for \$67.50? /1

Measurement

Q15 How many dimensions is a car? /1

Q16 Estimate the size of a small car, using an appropriate unit. /1

Q17 What is the time on this clock to the nearest minute? /1

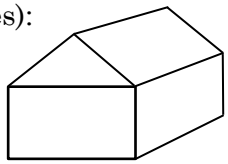
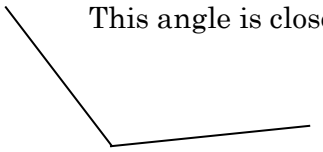


Q18 July 2 is how many days after May 20? /1

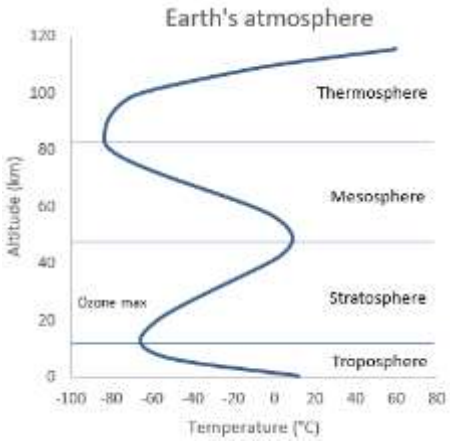
Q19 Write 0.6 L in cm^3. /1

Q20	A rectangle is 1 m by 25 cm. Find its perimeter in metres and its area in cm^2. Perimeter = m Area = cm^2	/2

Geometry

Q21	Draw a plan and elevations for this house (show all edges): 	/3
Q22	 This angle is closest to (circle one): 10° 70° 110° 210°	/1
Q23	Roger walks 3 km west, then 4 km south. His distance and bearing from where he started is closest to (circle one): 5 km 205° 7 km 245° 4 km 112° 1 km 310°	/1

Statistics

Q24	 Use the graph to the right to find: (a) the height of the top of the mesosphere (b) the temperature at a height of 20 km	/2
Q25	These are the ages of the Loganville Losers basketball team: 11, 5, 15, 12, 5. Find the mean, median, mode and range mean = median = mode = range =	/4

Probability		
Q26	For each of the following, say whether you can use indifference to find the probability and, if so, find it: (a) the probability that Roger will break his arm if he falls out the window. (b) the probability that a cube with different coloured faces will land with its green face up.	/2
Q27	Grace rolled 20 eggs off the table. 12 of them broke. Find: (a) the probability that the next one will break as a percentage (b) the number she would expect to break if she rolled another 30 off	/2