

Level 2 Test – Knowledge

Name

60 minutes Non-calculator Scribbling paper allowed

Put marks or ticks in the right column. Multiply total by 1.58 (round up) to get a score /52

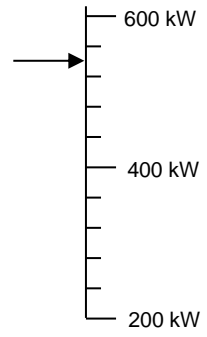
Score: /33 $\times 1.58 =$ /52

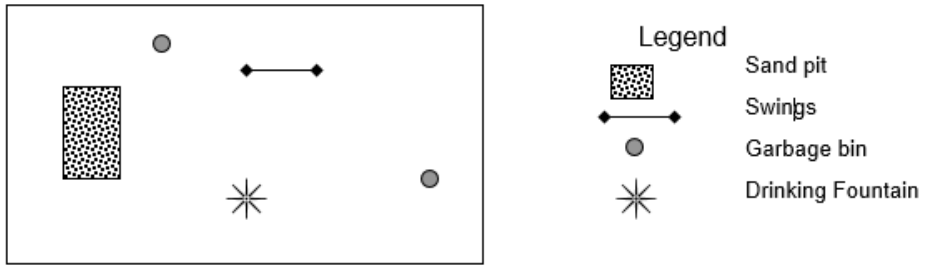
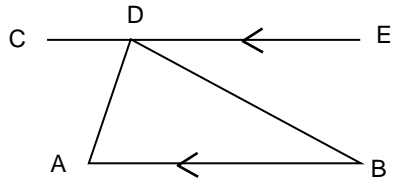
Number		
Q1	Which whole number is not a natural number?	/1
Q2	If 15% tax is added to the cost of an \$80 dress, how much will it cost in total?	/1
Q3	$2.91 \div 300$	/1
Q4	Jordan's car goes at 75 km/h. How many hours and minutes would it take to travel 400 km?	/1
Q5	Edgar makes cakes using butter, sugar and flour in the ratio 2:1:4. If he uses 80 g of flour, how much butter and sugar will he use?	/1
Q6	As a decimal, will $\frac{13}{20}$ terminate, recur or neither?	/1
Q7	What is $-4 - -7$?	/1
Q8	$\frac{1}{5} + 1\frac{1}{3}$	/1
Q9	List the factors of 32.	/1

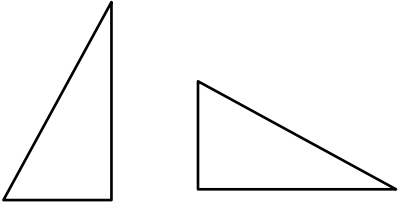
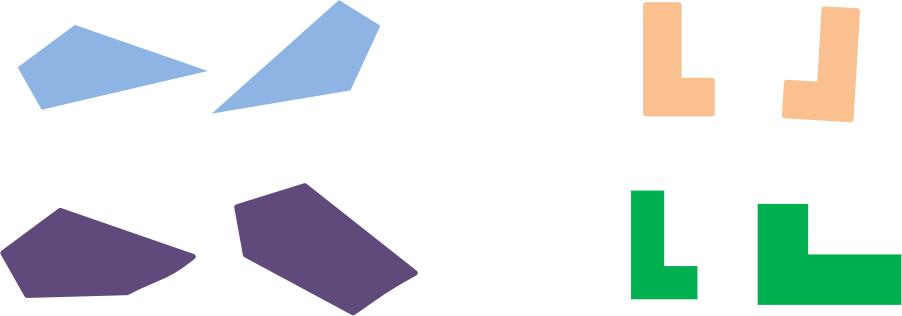
Algebra		
Q10	Find the next number in this pattern: 4, 7, 11, 16, 22, ...	/1

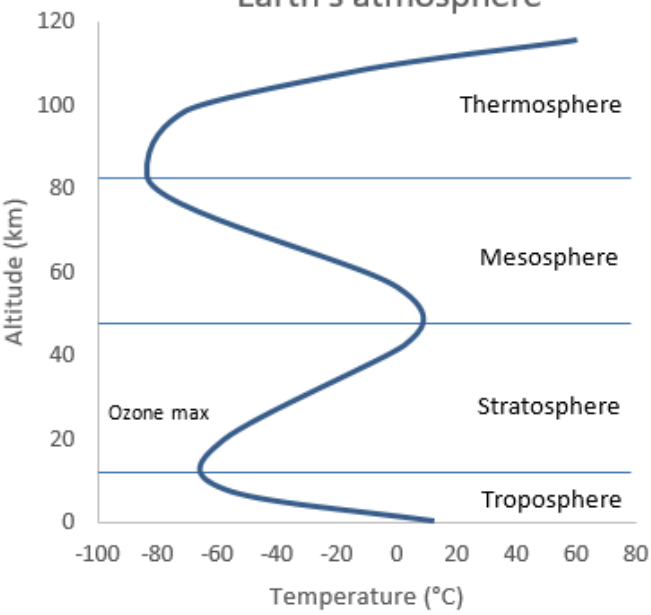
Q11	<p>Yvette thought of a number, added 7, then multiplied by 5. She then took away twice the number she started with. She ended up with 65.</p> <p>Write and solve an equation to find out what number she started with. Show working.</p>	/2
Q12	Solve $5(2x - 3) + 4x - 1 = 26$, showing working.	/2

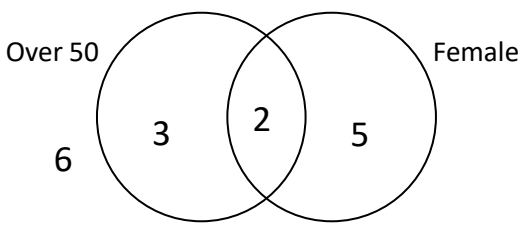
Measurement		
Q13	Write 20:40 in am/pm time.	/1
Q14	What will be the time 36 000 seconds after 8:20 am?	/1
Q15	<p>A plane flies from 30°N 80°E to 25°N 45°E.</p> <p>Will the pilot have to adjust her watch forwards or backwards when she lands?</p>	/1
Q16	Explain how to find the area of a trapezium.	/1
Q17	<p>Find the volume and surface area of a rectangular prism 20 cm by 12 cm by 10 cm.</p> <p>Volume = cm³ Surface area = cm²</p>	/2

Q18	 <p>Read this scale.</p>	/1
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Geometry		
Q19	 <p>The scale of this plan is 1 cm : 5 m. How long is the sand pit?</p>	/1
Q20	Between what numbers of degrees is an obtuse angle?	/1
Q21	 <p>If $\angle BDE = 35^\circ$ and $\angle DAB = 70^\circ$, what is $\angle ADB$?</p> <p>Give the letters for the two theorems needed to work that out.</p>	/2
Q22	What is the sum of the internal angles in a heptagon (7-sided polygon)?	/1

<p>Q23</p>	<p>The left triangle was rotated to produce the right triangle. Mark the point about which it was rotated</p> 	<p>/1</p>
<p>Q24</p>	<p>Circle the pair(s) of shapes which are congruent.</p> 	<p>/2</p>

<p>Statistics</p>		
<p>Q25</p>	<p style="text-align: center;">Earth's atmosphere</p>  <p>Does the temperature rise or fall as you go up through the stratosphere?</p>	<p>/1</p>

Probability		
Q26	What is probability?	/1
Q27	What is the probability of getting a total of 11 if you roll two dice?	/1
Q28	 <p>A Venn diagram with two overlapping circles. The left circle is labeled 'Over 50' and contains the number 3. The right circle is labeled 'Female' and contains the number 5. The overlapping region between the two circles contains the number 2. The number 6 is written to the left of the 'Over 50' circle, representing the total number of individuals in that group.</p> <p>If you picked a random male from this group, what is the probability that they would be over 50?</p>	/1