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| cid:image001.png@01CFC126.65C4D470  **Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Form \_\_\_\_\_\_\_\_** | | **Overall**  **\_\_\_\_\_\_%** |
| **Section A: Skills and Multiple Choice**  **Marks\_\_\_\_\_\_\_/29 \_\_\_\_\_\_\_%** | **Section B: Problem Solving**  **Marks\_\_\_\_\_\_\_/ 14 \_\_\_\_\_\_\_%** |

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| **Skills Covered** | | | | | | | | | | | |
| **Skill** | **Topic** | | | | **Skill** | **Topic** | | | | | |
| 1. | Volume of Prism | | | | 7. | Fraction Calculations | | | | | |
| 2. | Recognising Multiples/Factors/Primes | | | | 8. | Mean, median, mode of data | | | | | |
| 3. | Prime Factorisation | | | | 9. | Expanding Single brackets | | | | | |
| 4. | Percentage Calculations | | | | 10. | Simplifying Algebraic Expressions | | | | | |
| 5. | Percentage Calculations | | | | 11. | Solving Linear Equations | | | | | |
| 6. | Ratio | | | | 12. | Unknowns on both sides | | | | | |
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| **Section A: Multiple choice** | | | | | | | | | | | | |
| A. Circle the word that describes the line *AB*.  *A*  *B*  chord diameter radius tangent | | | | | | | | | | | | |
| 1 mark | | | | | | | | | | | | |
| B. Circle the smallest value.   |  |  |  |  | | --- | --- | --- | --- | |  | 30% | 0.33 | one-third | | | | | | | | | | | | | |
| 1 mark | | | | | | | | | | | | |
| C. Circle the number that is in standard form.   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | | | | | | | | | | | | | |
| 1 mark | | | | | | | | | | | | |
| Section A: Skills | | | | | | | | | | |
| 1. A cylinder has a radius of 4 cm and a height of 6 cm  Work out the volume.  Give your answer in terms of | | | | | 2. , and are **different** prime numbers.  Work out a set of values for , and so that | | | | | |
| R A G | | | 2 marks | | R A G | | | 2 marks | | |
| 3. Write 396 as a product of its prime factors | | | | | 4. A farm has a total area of 160 hectares.  62 hectares are used for growing crops.  Work out the percentage of the area of the farm that is used for growing crops. | | | | | |
| R A G | | | 2 marks | | R A G | | | 2 marks | | |
| 5. A shop has a sale. All items are 14% off.  A pair of shoes cost £80 before the sale.  Work out the price in the sale. | | | | | 6. The workers in a company are in the ratio  What fraction of the workers are female? | | | | | |
| R A G | | | 2 marks | | R A G | | | 2 marks | | |
| 7. Work out  Give your answer as a mixed number. | | | | 8. Below is a list of data.  28 32 28 30 76  Work out the median. | | | | | | |
| R A G | | 3 marks | | R A G | | | 2 marks | | | |
| 9. Multiply out | | | | 10. Simplify  (a)  (b) | | | | | | |
| R A G | | 2 marks | | R A G | | | 2 marks | | | |
| 11. Solve | | | | 12. Solve | | | | | | |
| R A G | | 2 marks | | R A G | | | 3 marks | | | |
| **Section B - Problems** | | | | | | | | | | |
| 1. The diagram shows an equilateral triangle and a square.  Each side of the triangle is 14 cm  14 cm  The perimeter of the triangle is equal to the perimeter of the square.  Work out the length of a side of the square. | | | | | | | | | | |
|  | | | | | | | | | | 3 marks |
| 2. The total cost of these 2 pens is 60p.    Work out the total cost of 5 of these pens.  Give your answer in pounds. | | | | | | | | | | |
|  | | | | | | | | | 3 marks | |

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| 3. Talil is going to make some concrete mix.  He needs to mix cement, sand and gravel in the ratio by weight.  Talil wants to make 180 kg of concrete mix.  Talil has  15 kg of cement  85 kg of sand  100 kg of gravel  Does Talil have enough cement, sand and gravel to make the concrete mix? | | |
|  | 4 marks | |
| 4. This shape is made from circles.  The diameter of  the smaller circle is 10 cm  the larger circle is 20 cm  10 cm  20 cm  What fraction of the shape is shaded?  Give your answer in its simplest form. | | |
|  | | 4 marks |