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| **Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Form \_\_\_\_\_\_\_\_**  | **Overall****\_\_\_\_\_\_%** |
| **Section A: Skills and Multiple Choice****Marks\_\_\_\_\_\_\_/28 \_\_\_\_\_\_\_%** | **Section B: Problem Solving****Marks\_\_\_\_\_\_\_/ 14 \_\_\_\_\_\_\_%** |



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| **Skills Covered** |
| **Skill** | **Topic** | **Skill** | **Topic** |
| 1 | Area of triangle | 7 | Prime Factorisation |
| 2 | Area of trapezium | 8 | Percentage Calculations |
| 3 | Area of a circle | 9 | Percentage Calculations |
| 4 | Circumference of a circle | 10 | Ratio |
| 5 | Volume of Prism | 11 | Fraction Calculations |
| 6 | Recognising Multiples/Factors/Primes | 12 | Mean of data |
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| **Section A: Multiple choice** |
| A. Circle the number of vertices of a triangular prism.

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| 4 | 5 | 6 | 9 |

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| 1 mark |
| B. Circle the most sensible measurement for the quantity shown.The length of a human finger.

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| 7 cm | 70 cm | 170 cm | 1700 cm |

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| 1 mark |
| C. Circle the expression that describes 20 more than .

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| 1 mark |
| **Section A: Skills** |
| 1. Calculate the area of the triangle. | 2. Calculate the area of the trapezium. |
| R A G  | 2 marks | R A G  | 2 marks |
| 3. Find the area of the circle. Give your answer to 3 significant figures. | 4. Find the circumference of the circle. Give your answer to 1 d.p. |
| R A G  | 2 marks | R A G  | 2 marks |
| 5. Here is a triangular prism. 3cm 5 cm8 cmWork out the volume. | 6. (a) Circle the number that is **both** a multiple of 3 and a multiple of 5 10 25 27 30 35(b) Circle the number that is a prime factor of 189 7 9 13 17 189 |
| R A G  | 3 marks | R A G  | 2 marks |
| 7. Write 280 as a product of its prime factors. | 8. Which is the greater percentage? 18 out of 40 or 41 out of 90 |
| R A G  | 2 marks | R A G  | 2 marks |
| 9. A train fare costs £23.55All train fares are increased by 2.8% Work out the new fare. | 10. The workers in a company are in the ratioThe company has 150 female workers.How many workers are there altogether?  |
| R A G  | 2 marks | R A G  | 2 marks |
| 11. Put these numbers in order starting with the smallest. You **must** show your working.  | 12. Below is a list of data.5 1 9 3 2 5 6 7 1 1Calculate the mean. |
| R A G  | 2 marks | R A G  | 2 marks |

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| **Section B - Problems** |
| 1. The trapezium and the square have the same areas.

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|  | Not drawn accurately |

What is the perimeter of the square? |
|  | 4 marks |
| 2. Here is a cuboid.The **areas** of the top and two sides are shown. Work out the volume of the cuboid.  |
|  | 3 marks |

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| 3. Seeta did a puzzle in 3 minutes 45 seconds.Ninal did the same puzzle in 7 minutes 28 seconds.Seeta says,‘I did the puzzle in less than half the time Ninal did the puzzle.’Is Seeta right?You must show all your working. |
|  | 3 marks |
| 4. Mr Brown and his 2 children are going to London by train.An adult ticket costs £24.A child ticket costs £12.Mr Brown has a Family Railcard.

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| **Family Railcard gives** off adult tickets60% off child tickets |

Work out the total cost of the tickets when Mr Brown uses his Family Railcard. |
|  | 4 marks |