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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 | | Negative/Fractional laws of indices | | | 7 | | | Factorise linear expressions | | |
| 2 | | Converting Recurring Decimals to Fractions | | | 8 | | | Solving Linear Equations | | |
| 3 | | Area of quarter circle | | | 9 | | | Change the subject of a formula | | |
| 4 | | Reverse Percentage Change | | | 10 | | | Gradient of | | |
| 5 | | Compound Interest | | | 11 | | | Pythagoras’ Theorem | | |
| 6 | | Simplifying Algebraic Expressions | | | 12 | | | RA Trigonometry | | |
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| **Section A: Multiple choice** | | | | | | | | | | |
| A. Circle the line that is perpendicular to   |  |  |  |  | | --- | --- | --- | --- | |  |  |  |  | | | | | | | | | | | |
| 1 mark | | | | | | | | | | |
| B. The equation of a circle is  Circle the value of the radius.  1 2 4 | | | | | | | | | | |
| 1 mark | | | | | | | | | | |
| C. Circle the decimal that is equivalent to   |  |  |  |  | | --- | --- | --- | --- | | 1.01 | 1.05 | 1.1 | 1.5 | | | | | | | | | | | |
| 1 mark | | | | | | | | | | |
| **Section A: Skills** | | | | | | | | | | |
| 1. Work out: | | | | | | 2. Express as a fraction in its simplest form. | | | | |
| R A G | | | 2 marks | | | R A G | | | 2 marks | |
| 3. The diagram shows a quarter circle with diameter 16cm. Find the area of the shape, give your answer in exact form. | | | | | | 4. After a 10% decrease the cost of a new sofa is £198. Work out the original price of the cooker. | | | | |
| R A G | | | 2 marks | | | R A G | | | 3 marks | |
| 5. A car depreciates in value by 16% per annum.  Jemima bought a car for £7000.  How much will the car be worth after 4 years? | | | | | | 6. Simplify fully: | | | | |
| R A G | | | 2 marks | | | R A G | | | 2 marks | |
| 7. Factorise fully: | | | | | | 8. Solve the equation | | | | |
| R A G | | | 2 marks | | | R A G | | | 3 marks | |
| 9. Rearrange to make the subject. | | | | | | 10. Work out the gradient of the straight line | | | | |
| R A G | | | 3 marks | | | R A G | | | 2 marks | |
| 11. Work out the length *x*.  Not drawn accurately  *x*  22 cm  15 cm  Not drawn accurately  *x*  22 cm  15 cm  Not drawn accurately  *x*  22 cm  15 cm    Not drawn accurately | | | | | | 12. What is the value of for this triangle?  2 cm  3 cm  *A*  *B*  *C*  Not drawn accurately  Circle your answer. | | | | |
| R A G | | | 2 marks | | | R A G | | | 1 mark | |

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| **Section B – Problems** | |
| 1. Eric travels from the UK to India every year.  In 2010, the exchange rate was £1 = 67.1 rupees.  In 2012, the exchange rate was £1 = 82.5 rupees.  In 2010 Eric changed £600 into rupees.  How many pounds (£) did Eric have to change to rupees in 2012 to get the same number of rupees as he did in 2010? | |
|  | 3 marks |
| 2. *ABCD* is a rectangle.  *EFGH* is a trapezium.    The perimeters of these two shapes are the same.  All measurements are in centimetres.  Work out the value of . | |
|  | 4 marks |

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| 3. The nth term of a sequence is  Alex says  “The nth term of the sequence is always a prime number when n is an odd number.”  Alex is wrong.  Give an example to show that Alex is wrong. | | |
|  | 2 marks | |
| 4. Ali is planning a party.  He wants to buy some cakes and some sausage rolls.  The cakes are sold in boxes.  There are 12 cakes in each box.  Each box of cakes costs £2.50.  The sausage rolls are sold in packs.  There are 8 sausage rolls in each pack.  Each pack of sausage rolls costs £1.20.  Ali wants to buy more than 60 cakes and more than 60 sausage rolls.  He wants to buy exactly the same number of cakes as sausage rolls.  What is the least amount of money Ali will have to pay? | | |
|  | | 5 marks |