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| Year  7 | Mathematics Test  2 and 3 Dimensional Shapes | **Non Calculator** |
|  | Name |  |

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| **Answer all questions in the spaces provided on this test paper by**  **Writing the answer in the box provided.**  **or**  **Shading in the bubble for the correct answer from the four choices provided.**  **Show any working out on the test paper.** | |
| 1. | The shape shown is a :  Rhombus Kite Parallelogram Trapezium |
| 2. | Draw in all the diagonals on the pentagon shown and complete the statement about the diagonals.  A pentagon has diagonals. |
| 3. | Two quadrilaterals which have all sides equal are :  a rectangle and a square. a kite and a rectangle.  a rhombus and a kite. a rhombus and a square. |
| 4. | Which is an accurate description of the shape shown?  A regular hexagon. An irregular hexagon.  An irregular octagon. A regular octagon. |
| 5. | Which statement is not true for an isosceles triangle?  Two sides are equal. All angles are equal.  There is one axis of line symmetry. It does not have point symmetry. |
| 6. | Which shape below is a regular polygon? |
| 7. | Use a ruler to draw a sketch of a trapezium: |
| 8. | What order of rotational symmetry does this design have? |
| 9. | Which of the shapes below is not a right-angled triangle? |
| 10. | Which quadrilateral below has diagonals which bisect one another at right angles? |
| 11. | Which solid below is a pyramid? |
| 12. | How many faces are there on a triangular prism?  faces |
| 13. | How many vertices are there on the solid shown?  8  9  16  17 |
| 14. | Which of the solids shown would have the top and side view below? |
| 15. | Draw a sketch of a right square pyramid. |
| 16. | How many rectangular and hexagonal faces has a hexagonal prism?  Rectangular faces :  Hexagonal faces : |
| 17. | Draw a sketch of the solid whose net is shown. |
| 18. | The solid shown is a hexagonal pyramid.  State whether the statements are TRUE or FALSE.    *FE* and *AF* are intersecting lines. \_\_\_\_\_\_\_\_\_\_\_\_\_\_  *FE* and *BC* are skew lines. \_\_\_\_\_\_\_\_\_\_\_\_\_\_  *FE* and *BC* are parallel lines. \_\_\_\_\_\_\_\_\_\_\_\_\_\_  *FE* and *GD* are intersecting lines. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 19. | Complete the table to illustrate   |  |  | | --- | --- | | A Pentagonal Pyramid | | | Faces (F) |  | | Vertices (V) |  | | Edges (E) |  | | F + V – E |  |   Euler’s Rule for a Pentagonal Pyramid. |
| 20. | Use a ruler to draw the net of the solid shown. |

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|  | ANSWERS |  |

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| 19. | Complete the table to illustrate   |  |  | | --- | --- | | A Pentagonal Pyramid | | | Faces (F) | 6 | | Vertices (V) | 6 | | Edges (E) | 10 | | F + V – E | 2 |   Euler’s Rule for a Pentagonal Pyramid. |
| 20. | Use a ruler to draw the net of the solid shown. |