|  |  |  |  |
| --- | --- | --- | --- |
| Year  7 | | *Angle Properties* | Non Calculator  Section |
| **Skills and Knowledge Assessed:**   * Use the language, notation and conventions of geometry. * Recognise the geometric properties of angles at a point. * Identify corresponding, alternate and co-interior angles when two straight lines are crossed by a transversal (ACMMG163) * Investigate conditions for two lines to be parallel and solve simple numerical problems using reasoning (ACMMG164) | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *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. Calculators are* ***not*** *allowed.* | | | |
|  | Four angles are marked, around a point *X*.  What is the size of  o | | |
|  | Three angles are marked, around a point *O*.  What is the name of the angle which is a right angle? | | |
|  | Four angles are marked, around a point *O*.  Which is **not** correct? | | |
|  | Measure the size of  with a protractor.    o | | |
|  | What is the size of    o | | |
|  |  | | |
|  | What is the value of  o | | |
|  | Which statement is true? | | |
|  | What are the sizes of the two angles  respectively?    60o and 61o.  60o and 106o.  133o and 61o.  133o and 106o. | | |
|  | Name a pair of equal angles in the heptagon shown? | | |
|  | Regina was asked to find the size of.  She correctly answered that it was 116o.  What was her reason?  Adjacent angles are equal.  Alternate angles are equal.  Corresponding angles are equal.  Vertically opposite angles are equal. | | |
|  | The lines *PQ* and *RS* are parallel.  Which is true? | | |
|  | What is the value of  o | | |
|  | What is the value of | | |
|  | *z =?*  63  72  117  144 | | |
|  | Name a pair of vertically opposite angles in the diagram below. | | |
|  | What is the size of the shaded angle?  23o 73o  119o 157o | | |
|  | Find the value of *c*. | | |
|  | Which is true ? | | |
|  | Find the value of *q*. | | |
|  | 15o  85o  95o  125o | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Year | | *Angle Properties* | Calculator Allowed  Short Answer  Section |
|  | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| *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. Calculators are allowed.* | | | |
|  | Use a protractor to measure the size of | | |
|  | Complete the statement below.    Angles of 75o and o are supplementary angles. | | |
|  | Find the value of *d*. | | |
|  | Find the size of . | | |
|  | .  Find the size of | | |
|  | 87  93  97  103 | | |
|  | Find the size of | | |
|  | What is the complement of 32o?  o | | |
|  | Which is an accurate description of the diagram?    are adjacent, complementary angles.  are adjacent, equal angles.  are adjacent, supplementary angles.  are alternate, complementary angles. | | |
|  | Three steel beams meet at a point in a building as shown.  What is the value of *y*?  *y =* o | | |
|  | Two straight rulers are lying crossed on a table.  Four angles are shown.  Which statement is **not** true?  *x = y.*  *x = z*.  *w = y*.  *w + z* = 180. | | |
|  | What is the value of | | |
|  | The diagram shows four connected rods.  The top and bottom rods are parallel.  What is the value of *k* ? | | |
|  | Which lines are parallel?  AB || CD only.  EF || GH only.  AB || CD and EF || GH.  None are parallel. | | |
|  | Which is true?  48o is the complement of 42o and the supplement of 132o.  48o is the complement of 42o and the supplement of 142o  48o is the complement of 132o and the supplement of 42o  48o is the complement of 142o and the supplement of 52o | | |
|  | Through how many degrees does the hour hand of a clock move between 12:00 noon and 4:20 pm on the same day?  110o 120o  130o 140o | | |
|  | What is the value of *m*? | | |
|  | What is the value of | | |
|  | Find the size of.  *p* = 40  *p* = 68  *p* = 72  *p* = 112 | | |
|  | What is the value of | | |
|  | Find the value of | | |

Angle Properties

ANSWERS

|  |
| --- |
| Non Calculator Section ( 1 mark each) |

|  |  |
| --- | --- |
|  | Four angles are marked, around a point *X*.  What is the size of  84o |
|  | Three angles are marked, around a point *O*.  What is the name of the angle which is a right angle? |
|  | Four angles are marked, around a point *O*.  Which is **not** correct? |
|  | Measure the size of  with a protractor.    o  46o |
|  | What is the size of      o  50 |
|  |  |
|  | What is the value of  67o o |
|  | Which statement is true? |
|  | What are the sizes of the two angles  respectively?    60o and 61o.  60o and 106o.  133o and 61o.  133o and 106o. |
|  | Name a pair of equal angles in the heptagon shown?  Q  M    or  LMN  KPQ |
|  | Regina was asked to find the size of.  She correctly answered that it was 116o.  What was her reason?  Adjacent angles are equal.  Alternate angles are equal.  Corresponding angles are equal.  Vertically opposite angles are equal. |
|  | The lines *PQ* and *RS* are parallel.  Which is true? |
|  | What is the value of  112  o |
|  | What is the value of |
|  | *z =?*  63  72  117  144 |
|  | Name a pair of vertically opposite angles in the diagram below.    ADC    GDE |
|  | What is the size of the shaded angle?  180 – (84+35+38) = 180 – 157 =23  23o 73o  119o 157o |
|  | Find the value of *c*. |
|  | Which is true ? |
|  | Find the value of *q*.    88 |
|  | 15o  85o  95o  125o |

Angle Properties

ANSWERS

|  |
| --- |
| Calculator Allowed Section ( 1 mark each) |

|  |  |
| --- | --- |
|  | Use a protractor to measure the size of |
|  | Complete the statement below.    Angles of 75o and 105 o are supplementary angles. |
|  | Find the value of *d*. |
|  | Find the size of .  124 |
|  | .  Find the size of  124o |
|  | 87  93  97  103 |
|  | Find the size of |
|  | What is the complement of 32o?  58o |
|  | Which is an accurate description of the diagram?    are adjacent, complementary angles.  are adjacent, equal angles.  are adjacent, supplementary angles.  are alternate, complementary angles. |
|  | Three steel beams meet at a point in a building as shown.    What is the value of *y*?  119  *y =* o |
|  | Two straight rulers are lying crossed on a table.  Four angles are shown.  Which statement is **not** true?  *x = y.*  *x = z*.  *w = y*.  w + z = 180. |
|  | What is the value of    103 |
|  | The diagram shows four connected rods.  The top and bottom rods are parallel.  What is the value of *k* ? |
|  | Which lines are parallel?  AB || CD only.  EF || GH only.  AB || CD and EF || GH.  None are parallel. |
|  | Which is true?  48o is the complement of 42o and the supplement of 132o.  48o is the complement of 42o and the supplement of 142o  48o is the complement of 132o and the supplement of 42o  48o is the complement of 142o and the supplement of 52o |
|  | Through how many degrees does the hour hand of a clock move between 12:00 noon and 4:20 pm on the same day?    110o 120o  130o 140o |
|  | What is the value of *m*? |
|  | What is the value of    36o |
|  | Find the size of.  *p* = 40  *p* = 68  *p* = 72  *p* = 112 |
|  | What is the value of  22.5 |
|  | Find the value of      15 |