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| Year | Mathematics Test  Indices and Number Systems | **Non Calculator**  **Test** |
|  | 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. | Which number is  “Three hundred and eight thousand, five hundred and thirty”  308 530 380 530 308 503 380 503 |
| 2. | What is the place value of the 7 digit in the number:  1 702 958 |
| 3. | What is the single numeral for the number which is written as:    839 8 039 8390 8309 |
| 4. | Write the numbers below in descending order.  345, 354, 4 503, 3 405, 3 054 |
| 5. | The number of coins in a container is given as 2 367.  What is this number rounded to the nearest 100? |
| 6. | The city of Kent has 1.4 million residents and the city of Cobadah has nine hundred thousand residents.  Which city has the most residents and how many more residents does it have?  The city of has more residents. |
| 7. | Which pair of numbers are both prime?  9 and 12 12 and 19 13 and 21 17 and 23 |
| 8. | Which of the following is correct?  12 and 18 are both factors of 48.  12 and 18 are both multiples of 48.  12 and 16 are both factors of 48.  12 and 16 are both multiples of 48. |
| 9. | Write all of the factors of 30. |
| 10. | Write the first 5 multiples of 8. |
| 11. | What is the value of  ?  6 8 16 32 |
| 12. | Write the following calculation in index notation: |
| 13. | Which index calculation is the same as: |
| 14. | Which number below is divisible by 6?  538 540 542 544 |
| 15. | Which is true?  1 420 is divisible by 3 and by 4.  1 420 is divisible by 3 but not by 4.  1 420 is divisible by 4 but not by 3.  1 420 is not divisible by 3 nor by 4. |
| 16. | Complete the statement:  A number which is divisible by 5 will end with the digits or . |
| 17. | Four students were asked to write 210 as a product of its prime factors.  Which answer was correct? |
| 18. | What number has the prime factorisation below? |
| 19. | Using the factor tree above complete the prime factorisation of 432 below. |
| 20. | Write the prime factorisation of 140. |
| 21. | Which is correct? |
| 22. |  |
| 23. | 13 22 88 242 |
| 24. | The number represented by the Roman numerals below is :  MCMLXVIII  1948 1968 2148 2168 |
| 25. | Write 647 using Roman numerals. |
| 26. | Write one of the symbols > , < or = in the box to correctly complete the sentence below. |
| 27. | Which of the following statements is true?  Statement A Statement B    Statement A only is true.  Statement B only is true.  Both statements are true.  Neither statement is true. |
| 28. | 45 ÷ (3 + 6) × 2 × 3 =  1 30 51 126 |
| 29. | Complete the calculation below using the correct order of operations. |
| 30. | Use lines to join the pairs of expressions which are equal in value. |

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|  | ANSWERS |  |

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| 1. | Which number is  “Three hundred and eight thousand, five hundred and thirty”  308 530 380 530 308 503 380 503 |
| 2. | What is the place value of the 7 digit in the number:  HUNDREDS OF THOUSANDS  1 702 958 |
| 3. | What is the single numeral for the number which is written as:    839 8 039 8390 8309 |
| 4. | Write the numbers below in descending order.  345, 354, 4 503, 3 405, 3 054  354  345  3 054  3 405  4 503 |
| 5. | The number of coins in a container is given as 2 367.  What is this number rounded to the nearest 100?  2 400 |
| 6. | The city of Kent has 1.4 million residents and the city of Cobadah has nine hundred thousand residents.  Which city has the most residents and how many more residents does it have?  Kent  500 000  The city of has more residents. |
| 7. | Which pair of numbers are both prime?  9 and 12 12 and 19 13 and 21 17 and 23 |
| 8. | Which of the following is correct?  12 and 18 are both factors of 48.  12 and 18 are both multiples of 48.  12 and 16 are both factors of 48.  12 and 16 are both multiples of 48. |
| 9. | Write all of the factors of 30.  30  15  10  6  5  3  2  1 |
| 10. | Write the first 5 multiples of 8.  40  32  24  16  8 |
| 11. | What is the value of  ?  6 8 16 32 |
| 12. | Write the following calculation in index notation: |
| 13. | Which index calculation is the same as: |
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