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| Year  8 | Mathematics Test  Equations | **Calculator Allowed**  **Test** |
|  | Name |  |

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| 1. | What number is missing from the sentence?    ?  18 46 64 128 |
| 2. | Which calculation could be used to find the solution to the equation  ? |
| 3. | Give the solution to:  *m =* |
| 4. | Give the solution to:  *a =* |
| 5. | Which is the correct solution to: |
| 6. | Which is the correct solution to: |
| 7. | Give the solution to:  *y =* |
| 8. | Give the solution to:  *y =* |
| 9. | What number is missing from the sentence?  ? |
| 10. | Solve the equation  .  *a* 8 *a* 20 *a* 22 *a* 26 |
| 11. | Which line in the solution to the equation  contains an error?    Line 1  Line 2  Line 3  Line 4  Line 1 Line 2 Line 3 Line 4 |
| 12. | What number is missing from the sentence?  ?    2.4 20 28 60 |
| 13. | Which line in the solution to the equation  contains an error?    Line 1  Line 2  Line 3  Line 4  Line 1 Line 2 Line 3 Line 4 |
| 14. | Test the possible solutions below to find the correct solution to the equation:    *x* = 4 *x* = 5 *x* = 6 *x* = 7 |
| 15. | Which is the correct solution to the equation: |
| 16. | Which number below could not be used to complete the sentence?  ?    1 3 4 5 |
| 17. | The graph of the solution to  is :    1 4     1. 4     4 7      4 7 |
| 18. | Write two numbers which could be used to make this sentence true.  or  ? |
| 19. | Which is the solution to  ? |
| 20. | Use the formula  to find the value of , when ,  and . |
| 21. | Use the formula  to find the value of , when ,  and . |
| 22. | The formula  is used to convert between temperatures in degrees Celsius (C) and degrees Fahrenheit (F). Find the Celsius equivalent of 41o Farenheit.  41o F = oC |

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| **Section 2**  Longer Answer Calculator Section | | | |  | |
| Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this test paper.  Calculators are allowed for this section. | | | | |
| 1. | Solve the equations below, showing all steps of working, regardless of the method used, | | | | |
|  | (a)  2  marks |  | (d)  2  marks | |  |
| (b)  2  marks |  | (e)  2  marks | |  |
| (c)  2  marks |  | (f)  2  marks | |  |

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| 2. | Solve the equations below, showing all steps of working, regardless of the method used. | | | |
|  | (a)  3  marks |  | (d)  3  marks |  |
| (b)  3  marks |  | (e)  3  marks |  |
| (c)  3  marks |  | (f)  3  marks |  |
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| Year  8 | Mathematics Test  Equations |  |
|  | ANSWERS |  |

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| 1. | What number is missing from the sentence?    ?  18 46 64 128 |
| 2. | Which calculation could be used to find the solution to the equation  ? |
| 3. | Give the solution to:  61  *m =* |
| 4. | Give the solution to:  13  *a =* |
| 5. | Which is the correct solution to: |
| 6. | Which is the correct solution to: |
| 7. | Give the solution to:  *y =*  -100 |
| 8. | Give the solution to:  20  *y =* |
| 9. | What number is missing from the sentence?  ? |
| 10. | Solve the equation  .  *a* 8 *a* 20 *a* 22 *a* 26 |
| 11. | Which line in the solution to the equation  contains an error?    Line 1  Line 2  Line 3  Line 4  Line 1 Line 2 Line 3 Line 4 |
| 12. | What number is missing from the sentence?  ?    2.4 20 28 60 |
| 13. | Which line in the solution to the equation  contains an error?    Line 1  Line 2  Line 3  Line 4  Line 1 Line 2 Line 3 Line 4 |
| 14. | Test the possible solutions below to find the correct solution to the equation:    *x* = 4 *x* = 5 *x* = 6 *x* = 7 |
| 15. | Which is the correct solution to the equation: |
| 16. | Which number below could not be used to complete the sentence?  ?    1 3 4 5 |
| 17. | The graph of the solution to  is :    1 4     1. 4     4 7      4 7 |
| 18. | Write two numbers which could be used to make this sentence true.  Any two numbers larger than  or  3  4  ? |
| 19. | Which is the solution to  ? |
| 20. | Use the formula  to find the value of , when ,  and .  -63 |
| 21. | Use the formula  to find the value of , when ,  and . |
| 22. | The formula  is used to convert between temperatures in degrees Celsius (C) and degrees Fahrenheit (F). Find the Celsius equivalent of 41o Farenheit.  5  41o F = oC |

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| **Section 2**  Longer Answer Calculator Section | | | |  | |
| Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this test paper.  Calculators are allowed for this section. | | | | |
| 1. | Solve the equations below, showing all steps of working, regardless of the method used, | | | | |
|  | (a)  2  marks |  | (d)  2  marks | |  |
| (b)  2  marks |  | (e)  2  marks | |  |
| (c)  2  marks |  | (f)  2  marks | |  |

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| 2. | Solve the equations below, showing all steps of working, regardless of the method used. | | | |
|  | (a)  3  marks |  | (d)  3  marks |  |
| (b)  3  marks |  | (e)  3  marks |  |
| (c)  3  marks |  | (f)  3  marks |  |
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