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| Year 9 | | *Basic Algebra Skills* | Non Calculator |
| **Skills and Knowledge Assessed:**   * Simplify algebraic expressions involving the four operations (ACMNA192) * Extend and apply the distributive law to the expansion of algebraic expressions (ACMNA190) * Factorise algebraic expressions by identifying numerical factors (ACMNA191) | | | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Section 1** Short Answer Section | | | |
| Write all working and answers in the spaces provided on this test paper. | | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Given that find the value of  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Given that , find the value of .  ………………………………………………………………………………………………. | | |
|  | Given that  find the value of  ………………………………………………………………………………………………. | | |
|  | Simplify,  ………………………………………………………………………………………………. | | |
|  | Expand  ………………………………………………………………………………………………. | | |
|  | Expand  ………………………………………………………………………………………………. | | |
|  | Simplify completely  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | If  complete the table of values for *x* and *y*.     |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | -1 | 0 | 1 | 2 | |  |  |  |  |  | | | |
|  | Expand and simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Expand and simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Simplify, leaving your answer as an index:  ………………………………………………………………………………………………. | | |
|  | Simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Factorise  ………………………………………………………………………………………………. | | |
|  | Factorise  ………………………………………………………………………………………………. | | |

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| Year 9 | | *Basic Algebra Skills* | Calculator Allowed |
| Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Section 2** Multiple Choice Section | | | |
| Mark all your answers on the accompanying multiple choice answer sheet, not on this test paper. You may do any working out on this test paper. Calculators are allowed for this section. | | | |
|  | A.  B.  C.  D. | | |
|  |  | | |
|  | Which of these algebraic expressions represents *“Double m and divide the result by n”*?  A.  B.  C.  D. | | |
|  | Simplify    A.  B.  C.  D. | | |
|  | Simplify  A.  B.  C.  D. | | |
|  | A. 2 B. 39 C. 59 D. 74 | | |
|  | Which of these is equal to  A.  B.  C.  D. | | |
|  | A.  B.  C.  D. | | |
|  | Which algebraic expression below represents :  *“The product of p and the square of q.”*  A.  B.  C.  D. | | |
|  | A.  B.  C.  D. | | |
|  | Which of the following is **not** a factor of  A.  B.  C.  D. | | |
|  | Factorise  .  A.  B.  C.  D. | | |
|  | Expand and simplify  A.  B.  C.  D. | | |
|  | When  is fully factorised, the result is:  A.  B.  C.  D. | | |
|  | Factorise  A.  B.  C.  D. | | |
|  | The table below is completed for one of the equations below.     |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | -1 | 0 | 1 | 2 | |  |  |  |  |  |   Which equation was used?  A.  B.  C.  D. | | |

*Multiple Choice Answer Sheet*

*Basic Algebra Skills*

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

11. A B C D

12. A B C D

13. A B C D

14. A B C D

15. A B C D

16. A B C D

|  |  |  |  |
| --- | --- | --- | --- |
| Year 9 | | *Basic Algebra Skills* | Non Calculator |
| **Section 1** Short Answer Section | | | |
| ANSWERS | | | |
| No. | WORKING | | ANSWER |
|  |  | |  |
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|  |  | | 30 |
|  |  | | 6 |
|  |  | |  |
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|  | |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | -1 | 0 | 1 | 2 | |  | 15 | 12 | 9 | 6 | | |  |
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| --- | --- | --- | --- | --- |
| Year 9 | | *Basic Algebra Skills* | Calculator Allowed | |
| **Section 2** Multiple Choice Section | | | | |
| ANSWERS | | | | |
| No. | WORKING | | | ANSWER |
|  |  | | | D |
|  |  | | | A |
|  | *Double m and divide the result by n =* | | | **D** |
|  |  | | | **C** |
|  |  | | | **B** |
|  |  | | | **C** |
|  |  | | | **B** |
|  |  | | | **A** |
|  | *The product of p and the square of q =* | | | **B** |
|  |  | | | **D** |
|  |  | | | **D** |
|  |  | | | **A** |
|  |  | | | **C** |
|  |  | | | **A** |
|  |  | | | **B** |
|  |  | | | **C** |

*Multiple Choice Answer Sheet*

*Basic Algebra Skills*

Name \_\_\_\_\_\_\_ANSWERS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completely fill the response oval representing the most correct answer.

1. A B C D

2. A B C D

3. A B C D

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. A B C D

9. A B C D

10. A B C D

11. A B C D

12. A B C D

13. A B C D

14. A B C D

15. A B C D

16. A B C D