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| Year  9 | | *Basic Algebra Skills* | Non Calculator  Section |
| **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  ………………………………………………………………………………………………. | | |
|  | Given that find the value of  ………………………………………………………………………………………………. | | |
|  | Given that find the value of  ………………………………………………………………………………………………. | | |
|  | Simplify completely  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Expand  ………………………………………………………………………………………………. | | |
|  | Expand  ………………………………………………………………………………………………. | | |
|  | Expand and simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Expand and simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Simplify  ………………………………………………………………………………………………. | | |
|  | Simplify  ……………………………………………………………………………………………….  ………………………………………………………………………………………………. | | |
|  | Factorise  ………………………………………………………………………………………………. | | |
|  | Factorise  ………………………………………………………………………………………………. | | |

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| Year  9 | | *Basic Algebra Skills* | Calculator Allowed  Section |
|  | 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. | | | |
|  | Which expression below does not simplify to  A.  B.  C.  D. | | |
|  | A.  B.  C.  D. | | |
|  | When  ,  A.  B.  C. 24 D. 40 | | |
|  | If  A.  B.  C.  D. | | |
|  | A.  B.  C.  D. | | |
|  | Which of the following is **not** a factor of  A.  B.  C.  D. | | |
|  | When  is fully factorised, the result is:  A.  B.  C.  D. | | |
|  | Using the formula  to find the value of  when .  A.  B.  C. 36 D. 54 | | |
|  | 1. B.  C.  D. | | |
|  | A.  B.  C.  D. | | |
|  | Which algebraic expression below represents :  “Half the sum of *m* and *n*.”   1. B.  C.  D. | | |
|  | Which of the following means the same as  ?   1. Twice the square of the sum of *x* and *y*. 2. The square of twice the sum of *x* and *y*. 3. The sum of twice the square of *x* and *y*. 4. Twice the sum of the square of *x* and *y*. | | |

*Multiple Choice Answer Sheet*

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

*Basic Algebra Skills*

ANSWERS

|  |  |
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| Section 1 | |
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| Section 2 | |
|  | D |
|  | B |
|  | D |
|  | B |
|  | A |
|  | C |
|  | C |
|  | B |
|  | C |
|  | D |
|  | A |
|  | A |

*Multiple Choice Answer Sheet*

Name Marking Sheet

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