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| Year  8 | | Mathematics Test  Further Algebraic Techniques  Products and Factors | **Non Calculator**  **Test** | |
|  | | 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.** | | | |
| 1. | The expression  when simplified completely is  5*a* 9*a* 10*a* 28*a* | | |
| 2. | =  14*mn* 14*m2*  11*mn +*3*m2* 11*mn –* 3*m2* | | |
| 3. | Simplify  completely. | | |
| 4. |  | | |
| 5. | Simplify | | |
| 6. | Simplify | | |
| 7. | Which of the following is not a factor of  ?  6*x* 2*xy* 4*x2* 8*y* | | |
| 8. | Which product is not equal to  ? | | |
| 9. |  | | |
| 10. |  | | |
| 11. |  | | |
| 12. | Expand | | |
| 13. | Expand | | |
| 14. | Expand | | |
| 15. | When  is expanded, the result is | | |
| 16. | Expand | | |
| 17. | Expand | | |
| 18. | Expand | | |
| 19. | When  is expanded, the result is: | | |
| 20. | Expand and simplify | | |
| 21. | Factorise | | |
| 22. | Factorise | | |
| 23. | Factorise | | |
| 24. | Factorise | | |
| 25. | When  is fully factorised, the result is | | |
| 26. | Factorise | | |
| 27. | Factorise | | |
| 28. | Factorise | | |
| 29. | Factorise fully | | |
| 30. | Factorise fully | | |
| 31. | When  and  , the value of  =  24 48 36 72 | | |
| 32. | When  and  , the value of  =  -76 -4 4 76 | | |
| 33. | Complete the missing values in the table below. | | |
| 34. | Which equation describes the relationship between *x* and *y*?     |  |  |  |  | | --- | --- | --- | --- | |  | 1 | 2 | 3 | |  | -1 | 0 | 1 | | | |
| 35. | Which algebraic statement could be used to describe the relationship  “To get *y*, you square *x* and take away 5.” | | |

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| Year  8 | | Mathematics Test  Further Algebraic Techniques  Products and Factors |  | |
|  | | ANSWERS |  | |
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