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| Year  8 | Practice Test – Algebraic Techniques, Products and Factors | **Non Calculator Practice Test.** |
|  | Name |  |

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| 1. | The expression  when simplified completely is  5*x* 4*x* 3*x* 2*x* |
| 2. | =  3*xy* 2*xy*  -3*xy* -2*xy* |
| 3. | Simplify  completely. |
| 4. |  |
| 5. | Simplify |
| 6. | Simplify |
| 7. |  |
| 8. |  |
| 9. |  |
| 10. | Which of the following does **not** simplify to  ? |
| 11. |  |
| 12. | Simplify |
| 13. |  |
| 14. | ? |
| 15. |  |
| 16. | Expand |
| 17. | Expand |
| 18. | When  is expanded, the result is |
| 19. | Expand |
| 20. | When  is expanded, the result is |
| 21. | Factorise |
| 22. | Factorise |
| 23. | When  is fully factorised, the result is |
| 24. | Factorise |
| 25. | Which of the following, when expanded gives : |
| 26. | When  and  , the value of  -27 45 27 |
| 27. | When  and  , the value of  =  144 36 -72 -36 |
| 28. | When  and  , the value of  =  6 48 4 20 |
| 29. | Complete the missing value in the table below. |
| 30. | Which equation describes the relationship between *x* and *y*?     |  |  |  |  | | --- | --- | --- | --- | |  | 1 | 2 | 3 | |  | 1 | 4 | 7 | |
| 31. | Which algebraic statement could be used to describe the relationship  “To get *y*, you double *x* and take away 5.” |
| 32. | The cost in cents (*C*) of hiring a taxi cab to travel a distance in kilometres (*d*) is given by the relationship:  ***Complete the statement below***  The cost is found by the distance by  and adding . |