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| Year  9 | | Index Laws Practice Test | | Non Calculator |
| Short Answer Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Write all working and answers in the spaces provided on this Practice Test paper. | | | |
| 1. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 2. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 3. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 4. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 5. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 6. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 7. | Write  without using an index.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 8. | Evaluate  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 9. | Write  without using an index.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 10. | Evaluate  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 11. | Evaluate  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 12. | Simplify  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 13. | Write  as a numeral without using standard notation.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 14. | Write  without using standard notation.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 15. | Write 0.000456 using standard notation.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 16. | Which is largest  , 258 000 or  ?  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |
| 17. | The distance to space probe Alpha is  km. A second probe, Beta is half as far away. Write the distance to probe Beta without using Standard Notation.  ..........................................................................................................................................................    .......................................................................................................................................................... | | | |

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| Year  9 | | Index Laws Practice Test | | Calculator |
| Multiple Choice Section | Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |
|  | Mark all your answers on the accompanying multiple choice answer sheet, not on this Practice Test paper. You may do any working out on this Practice Test paper. Calculators are allowed for this section. | | | |
| 1. | 4*x² ×* 6*x3* =  **A.** 24*x5* **B.** 10*x5* **C.** 24*x6* **D.** 10*x6* | | | |
| 2. | **=**  **A.** 32*x²* **B.** 9*x3* **C.** 9*x²* **D.** 32*x3* | | | |
| 3. | **A.** 20*x²y* **B.** 9*x3 y* **C.** 9*x² y* **D.** 20*x3y* | | | |
| 4. | A.  B.  C.  D. | | | |
| 5. | **(***3x3)2* =  **A.** 6*x6* **B.** 9*x6*  **C.** *9x5*  **D.** 6*x5* | | | |
| 6. | The fraction  simplifies to:  **A.**  **B.**  **C.**  **D.** | | | |
| 7. | **(***4x2y)2* =  **A.** 4*x*²*y*2 **B.** 16*x*2 *y*2 **C.** 8*x*4 *y*2 **D.** 16*x*4*y*2 | | | |
| 8. | **=**  **A.**  **B.**  **C.**  **D.** | | | |
| 9. | **A.**  **B.**  **C.**  **D.** | | | |
| 10. | =  **A.** 50 **B.** 10 **C.** 10 000 **D.** 20 | | | |
| 11. | **A.**  **B.**  **C.**  **D.** | | | |
| 12. | **A.**  **B.**  **C.**  **D.** | | | |
| 13. | 4.6 × 105 =  **A.** 460 **B.** 46 **C.** 460 000 **D.** 4 600 000 | | | |
| 14. | when written in standard notation is :  **A.**  **B.**  **C.**  **D.** | | | |
| 15. | =  **A.**  **B.**  **C.**  **D.** | | | |
| 16. | =  **A.**  **B.**  **C.**  **D.** | | | |
| 17. | A.  B.  C.  D. | | | |

Index Laws Practice Test

Multiple Choice Section

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

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

17. A B C D