**Unit 1 Review**

**Multiple Choice:** *Identify the choice that best completes the statement or answers the question.*

\_\_\_\_ 1. Without evaluating the radical, between which two integers is the value of ?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 8 and 9 | b. | 7 and 8 | c. | 10 and 11 | d. | 9 and 10 |

\_\_\_\_ 2. Estimate the value of  to 1 decimal place.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 3.7 | b. | 3.8 | c. | 3.2 | d. | 3.5 |

\_\_\_\_ 3. Which value is the closest estimate to ?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 2.4 | b. | 2.6 | c. | 2.1 | d. | 2.7 |

\_\_\_\_ 4. Write  as a square root.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 5. Evaluate . Write the answer as a fraction in lowest terms.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 6. Which radicals are equal to ?

I.  II.  III.  IV. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Only II and III | c. | Only I and IV |
| b. | Only I, II, and III | d. | Only I and III |

\_\_\_\_ 7. Which statements are true?

I. All natural numbers and whole numbers are integers.

II. All positive numbers and negative numbers are integers.

III. All terminating decimals and non-terminating decimals are rational numbers.

IV. All rational numbers and irrational numbers are real numbers.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Only statements I, II, and III | c. | Only statements II and III |
| b. | Only statements I and IV | d. | Only statements I, III, and IV |

\_\_\_\_ 8. Classify the number .

I. Positive integer II. Rational number III. Irrational number IV. Real number

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | I, II, and IV | b. | III and IV | c. | II and IV | d. | I and II |

\_\_\_\_ 9. Which set of numbers contains all irrational numbers?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | , , | c. | , , |
| b. | , , | d. | , , |

\_\_\_\_ 10. Write  as a mixed radical.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 11. Write  as a mixed radical.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 12. Write  as an entire radical.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 13. Write  as an entire radical.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 14. Simplify: 

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. | 3 | c. | 1 | d. |  |

\_\_\_\_ 15. Which expression is equivalent to ?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 16. Which power is equivalent to ?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 17. Evaluate  without using a calculator.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 18. Write  as a power with a rational exponent.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 19. Evaluate  without using a calculator.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. | 16 | d. | 8 |

\_\_\_\_ 20. Write  as a power with a negative exponent.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 21. Evaluate  without using a calculator.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 22. Evaluate  without using a calculator.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 23. Simplify . Write the expression with positive exponents.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 24. Simplify . Write the expression with positive exponents.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 25. Evaluate . Write the answer as an integer or a fraction in lowest terms.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. | 81 | d. |  |

\_\_\_\_ 26. Simplify . Write the expression with positive exponents.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 27. Simplify . Write the expression with positive exponents.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 28. Simplify . Write the expression with positive exponents.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

**Unit 1 Review**

**Answer Section**

1. ANS: D

2. ANS: D

3. ANS: A

4. ANS: D

5. ANS: C

6. ANS: B

7. ANS: B

8. ANS: A

9. ANS: D

10. ANS: C

11. ANS: B

12. ANS: C

13. ANS: A

14. ANS: B

15. ANS: B

16. ANS: C

17. ANS: B

18. ANS: D

19. ANS: A

20. ANS: B

21. ANS: B

22. ANS: B

23. ANS: B

24. ANS: B

25. ANS: C

26. ANS: D

27. ANS: C

28. ANS: C