

Algebra 2: Unit 1 Part 1 Quiz 1 MASTERY QUIZ

Properties, Real Numbers, Order of Operations, Properties of Exponents, and Solving Equations

1. Which number is irrational?

- A. $1/5$
- B. -4
- C. $\sqrt{3}$
- D. $0.\overline{333}$

2. Which describes Natural numbers?

- A. ... $-1, 0, 1$...
- B. ... $0, 1, 2$...
- C. ... $1, 2, 3$...
- D. None of these

3. Which property is illustrated below?

$$6(x - 4) = 6(x) + 6(-4)$$

- A. Associative Property
- B. Identity Property
- C. Commutative Property
- D. None of these

4. Which number sentence is an example of the Inverse Property of Addition?

- A. $x + x = 2x$
- B. $x + 0 = x$
- C. $x(1) = x$
- D. $x(x) = x^2$

5. What value is equal to $\frac{12-4}{2} + [10 - (-7)]$?

- A. -21
- B. 7
- C. 21
- D. 44

6. Evaluate:

$$5 \cdot -3 - \frac{40}{8+2} \cdot 2 \div 4$$

- A. 13
- B. -17
- C. -13
- D. None of these

7. Which mathematical property is illustrated below?

$$(x)(y)(z) = (z)(x)(y)$$

- A. Associative Property
- B. Identity Property
- C. Commutative Property
- C. None of these

8. Evaluate $9^{3/2}$

- A. 365.5
- B. 27
- C. 46.5
- D. 4

Algebra 2: Unit 1 Part 1 Quiz 1 MASTERY QUIZ

Properties, Real Numbers, Order of Operations, Properties of Exponents, and Solving Equations

9. Simplify $(4x^2y^5z^0)^2$

- A. $4x^4y^{10}$
 B. $4x^4y^{10}z$
 C. $16x^4y^{10}z$
 D. $16x^4y^{10}$

10. Simplify $\frac{8x^{10}y^9}{4x^2y^{10}}$

- A. $\frac{2x^5}{y}$
 B. $2x^8y$
 C. $4x^8y$
 D. $\frac{2x^8}{y}$

11. What is the exponent on X when you simplify the following expression?

$$\left(\frac{3x^4y^0}{x^{-1}}\right)^3$$

- A. -15
 B. 15
 C. 9
 D. -9

12. Solve for X .

- A. $\frac{x}{2} + 10 = 35$
 B. 20
 C. 60
 D. 23

13. Simplify: $10x - 3(2 - x) + 4$

- A. $11x + 10$
 B. $9x - 2$
 C. $11x - 2$
 D. $11x - 10$

14. Choose the letter of the statement below that is true about the quantities in Columns I and II.

- A. The number in Column I is greater.
 B. The number in Column II is greater.
 C. The two numbers are equal.
 D. The relationship cannot be determined from the given information.

Column I	Column II
the value of x in:	the value of y in:
$\frac{1}{3}x - \frac{2}{6} = 8$	$15y = 3y + 4$

15. Solve the literal equation:

$$V = \frac{1}{3}\pi r^2 \text{ for } r$$

- A. $r = \sqrt{\frac{3\pi}{V}}$
 B. $r = 3V\pi$
 C. $r = \sqrt{\frac{3V}{\pi}}$
 D. $r = \frac{3V}{\pi}$