

ALGEBRA I FINAL EXAM

Directions: Choose the best answer for each question.

1. Find the difference of the polynomials.

$$(3x^2 - 2xy + y^2) - (-5x^2 + 6xy - y^2)$$

- a. $2x^2 - 3xy$
- b. $8x^2 - 11xy$
- c. $2x^2 - 3xy + 2y$
- d. $8x^2 - 8xy + 2y^2$

3. Find the product.

$$(5x - 3y)(6x + y)$$

- a. $30x^2 + 23xy + 3y^2$
- b. $30x^2 - 13xy - 3y^2$
- c. $35x - xy - 4y^2$
- d. $15x^2 - 23xy - 3y^2$

5. What property is represented below?

$$6 \cdot (3 \cdot 2) = (3 \cdot 2) \cdot 6$$

- a. commutative property
- b. identity property
- c. inverse property
- d. associative property

7. Find the roots of the quadratic function.

$$f(x) = 6x^2 - 5x - 2$$

- a. $x = 6; x = -2$
- b. $x = \frac{5 \pm \sqrt{13}}{2}$
- c. $x = 1 \pm \sqrt{73}$
- d. $x = \frac{5 \pm \sqrt{73}}{12}$

2. Which inequality best represents the graph?

- a. $y < \frac{2}{3}x + 1$
- b. $y \leq \frac{2}{3}x + 1$
- c. $y \geq \frac{2}{3}x + 1$
- d. $y < -\frac{3}{2}x + 1$



4. Jeffrey bought a collectable baseball card for \$12. If the value of the card appreciated by 9.4% each year, how much will the card be worth in 7 years?

- a. \$22.51
- b. \$112.80
- c. \$1,241.06
- d. \$39.27

6. Evaluate the expression when $x = 2$ and $y = -3$.

$$3y^2 - 2(5x + 3) - 1$$

- a. 0
- b. -3
- c. 10
- d. -4

8. Find the solution to the system of linear equations below.

$$\begin{aligned} 6x - 5y &= 1 \\ y &= 2x - 1 \end{aligned}$$

- a. $(-1, 3)$
- b. $(1, 1)$
- c. $(1, 2)$
- d. $(0, 2)$

Grade 8 Algebra Practice Test And Answers

RS Peters



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