

**TASK 1: Review Week 11 Quiz**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

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

- \_\_\_\_\_ 1. A large white square represents an  $x^2$ -tile, a black rectangle represents a  $-x$ -tile, and a small white square represents a 1-tile.

Write the polynomial represented by this set of algebra tiles.

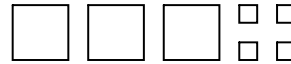


- a.  $3x^2 - x^3 + 5$       b.  $-3x^2 + 3x + 5$       c.  $3x^2 - 3x + 5$       d.  $3x - 3x^2 + 5$

- \_\_\_\_\_ 2. A large white square represents an  $x^2$ -tile, a large black square represents a  $-x^2$ -tile, a small white square represents a 1-tile, and a small black square represents a  $-1$ -tile.

How would you model the polynomial  $-3x^2 - 4$  with algebra tiles?

- a. \_\_\_\_\_ c. \_\_\_\_\_



- b. \_\_\_\_\_ d. \_\_\_\_\_



- \_\_\_\_\_ 3. Which of the following expressions is a binomial with degree 2?

- i)  $x^2 - 6x + 5$   
 ii)  $3x^2$   
 iii)  $5x^2 - 2x$   
 iv)  $\frac{1}{x^2} - 7$
- a. i      b. ii      c. iv      d. iii

- \_\_\_\_\_ 4. Name the coefficients of the variable in the polynomial  $-4x^2 + 10x - 12$ .
- a. -4      b. -4, 10      c. -4, -12      d. 4, 10

- \_\_\_\_\_ 5. From the list, which terms are like  $-7x^2$ ?  
 $7x^2, 7x, 6x^2, -7, -5, -7x, -3x^2$
- a.  $7x^2, 7x, -7, -7x$       c.  $7x^2, 7x, -7x$   
 b.  $7x^2$       d.  $7x^2, 6x^2, -3x^2$

- \_\_\_\_\_ 6. Simplify:  $10x^2 - 8 + 3x + 5 - 6x^2 - 6x$
- a.  $4x^2 - 3x + 3$       c.  $4x^2 + 3x + 3$   
 b.  $4x^2 - 3x - 3$       d.  $4x^4 - 3x^2 - 3$

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**Short Answer: Show all work on a separate piece of paper.**

7. Is each expression a monomial, binomial, or trinomial?  
 a)  $5x^2 - 2x$       b)  $4x^2$       c)  $4 - 6x + 5x^2$       d)  $2x^2 - 7$       e)  $4x^3 - 8x$
8. Name the coefficients, variable, degree, and constant term in the polynomial  $4x^2 - 6x + 8$ .

9. Identify the degree of each polynomial.  
 a)  $7t + 4$       b)  $4$       c)  $4p^2 - 7p + 7$       d)  $11q^2$       e)  $13v$

10. A large white square represents an  $x^2$ -tile, a large black square represents a  $-x^2$ -tile, a white rectangle represents an  $x$ -tile, a black rectangle represents a  $-x$ -tile, a small white square represents a 1-tile, and a small black square represents a  $-1$ -tile.

Sketch algebra tiles to model the polynomial:  $6 - 4v^2 + v$ .

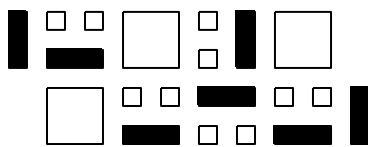
11. Group like terms.  
 $5x^2 + 5 - 2x + 3 + 3x^2 - 3x$

12. Write a polynomial that simplifies to:  $4x^2 - 3x + 5$ .

13. Simplify:  $-4x^2 + 5 - 6x + 4 - 3x^2 + 4x$

14. A large white square represents an  $x^2$ -tile, a large black square represents a  $-x^2$ -tile, a white rectangle represents an  $x$ -tile, a black rectangle represents a  $-x$ -tile, a small white square represents a 1-tile, and a small black square represents a  $-1$ -tile.

Write the polynomial represented by this set of algebra tiles.



15. Write a polynomial with the given variable, degree, coefficient, and number of terms.  
 a) Variable:  $p$ ; degree: 2; coefficients: 2,  $-4$ ; number of terms: 2  
 b) Variable:  $c$ ; degree: 1; coefficient: 6; number of terms: 1  
 c) Variable:  $t$ ; degree 2, coefficients:  $-3$ , 7; number of terms: 3; constant: 5

16. a) Group like terms, then simplify.  
 $5x^2 + 8x^2 - 4x - 6 + 6x^2 - 4x + 3$

b) Write a different polynomial that simplifies to the answer in part a.

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**Answer Section**

**MULTIPLE CHOICE**

- 1. ANS: C
- 2. ANS: B
- 3. ANS: D
- 4. ANS: B
- 5. ANS: D
- 6. ANS: B

**SHORT ANSWER**

- 7. ANS:  
a) Binomial   b) Monomial   c) Trinomial   d) Binomial   e) Binomial

- 8. ANS:  
Coefficients: 4, -6  
Variable:  $x$   
Degree: 2  
Constant term: 8

- 9. ANS:  
a) 1   b) 0   c) 2   d) 2   e) 1

- 10. ANS:



- 11. ANS:  
 $5x^2 + 3x^2 - 2x - 3x + 5 + 3$

- 12. ANS:  
Sample answer:  
 $8x^2 - 4x^2 - 8x + 5x + 8 - 3$

- 13. ANS:  
 $-7x^2 - 2x + 9$

- 14. ANS:  
 $3x^2 - 7x + 10$

- 15. ANS:  
a)  $2p^2 - 4p$    b)  $6c$    c)  $-3t^2 + 7t + 5$

- 16. ANS:  
a)  $5x^2 + 8x^2 - 4x - 6 + 6x^2 - 4x + 3$   
 $= 5x^2 + 8x^2 + 6x^2 - 4x - 4x - 6 + 3$   
 $= 19x^2 - 8x - 3$

- b) Sample answer:  $13x^2 + 6x^2 - 5x - 3x - 1 - 2$