



Name: \_\_\_\_\_  
Date Started: \_\_\_\_\_ Date Completed: \_\_\_\_\_ Score: \_\_\_\_\_

**Learning Activity Sheet**  
**Addition and Subtraction of Polynomials**

**INSTRUCTIONS:** Answer the following questions. Encircle the letter of the correct answer.

1. What is the sum when you add  $(-9x^2)$  and  $(5x^2)$ ?  
a.  $4x^2$                       b.  $-4x^2$                       c.  $-14x^2$                       d.  $-14x^4$
2. What is the result when you simplify the expression:  $(4 + 2n^3) + (5n^3 + 2)$ ?  
a.  $9n^3 + 4n^3$                       c.  $3n^3 + 2$   
b.  $7n^3 + 6$                       d.  $7n^3 + 2$
3. What must be subtracted from  $6x^4 - 6x$  to get  $3x^4 - 3x$ ?  
a.  $3x + 3x^4$                       c.  $3x^4 + 3x^4$   
b.  $9x^4 + 9x$                       d.  $-9x^4 - 9x$
4. What must be added to  $13n^2 + 11n - 2n^4$  to get  $(-8n^4 + 8n)$ ?  
a.  $4n^2 - 10n^4 + 19n$                       c.  $-13n^2 + 8n - 2n^4$   
b.  $-10n^4 + 13n^2 + 11n$                       d.  $-13n^2 - 3n - 6n^4$
5. What is the difference when you subtract  $(-x^2 + 5x + 1)$  by  $(x^2 + 4x + 2)$ ?  
a.  $9x + 3$                       c.  $2x^2 + 9x + 3$   
b.  $x + 1$                       d.  $-2x^2 + x - 1$
6. What will be the sum if when  $(k + 3h)$  and  $(5h - hk)$  are added?  
a.  $5h - k$                       c.  $-3k + 8h$   
b.  $-5h + 3k$                       d.  $5h + k + 3h - hk$
7. What is the result if  $(8p^2 + 8p + 45)$  is added to  $(4p - 9)$ ?  
a.  $8p^2 - p + 36$                       c.  $8p^2 + 12p + 36$   
b.  $12p^2 + 17p + 45$                       d.  $12p^2 + 4p + 54$
8. What is the difference when you subtract  $(8n - 3n^4 + 10n^2)$  by  $(3n^2 + 11n^4 - 7)$ ?  
a.  $5n^2 + 7n^4 + 3n^2$                       c.  $-14n^4 + 7n^2 + 8n + 7$   
b.  $14n^4 + 13n^2 - 15n$                       d.  $14n^4 - 7n^2 - 8n - 7$
9. What is the result when you subtract  $(4x - 5)$  from the sum of  $(5x + 2)$  and  $(3x + 2)$ ?  
a.  $4x + 9$                       c.  $8x - 1$   
b.  $4x - 1$                       d.  $12x + 9$
10. What is the difference when  $a^2 - 3ab - 5b^2$  is subtracted from  $7a^2 - 5ab$ ?  
a.  $8a^2 + 8ab + 5b^2$                       c.  $6a^2 - 2ab + 5b^2$   
b.  $6a^2 + 2ab + 5b^2$                       d.  $8a^2 - 8ab - 5b^2$