## **Polynomial Test**

What is the sum or difference?

1. 
$$6x^7 + 8x^7$$

2. 
$$2x^7 - 8x^7 - 6$$

Write the polynomial in standard form. Then name the polynomial based on its degree and number of

3. 
$$3x + 2x^2 - 6$$

3.  $3x+2x^2-6$   $2x^2+3x-6$ 1pt quadratic trinomial ipt

Simplify the sum or difference.

4. 
$$(2u^3 + 6u^2 + 3) + (2u^3 - 7u + 6)$$

 $2u^3 + (2u^3) + 6u^2 - 7u + 3 + (6)$  $4u^{3} + 6u^{2} - 7u + 9$ 

5. 
$$(4w^2 - 7w - 6) - (8w^2 + 2w - 3)$$

$$4w^{2} - (8w^{2}) - 7w - (2w) - 6 - (-3)$$
  
 $-4w^{2} - 5w - 3$ 

## Find the GCF of the terms of the polynomial.

6. 
$$48x^{6} + 6x^{2} - 26x^{3}$$

$$G(K = 2 \times 2)$$

$$G(K = 1, 2, 3, 4, 12, 16, 24, 48)$$

$$G(K = 1, 2, 3, 6)$$

$$26 = 1, 2, 13, 26$$

## Factor the polynomial.

7. 
$$\frac{2510^6 + 3510^3}{5\omega^3}$$
 25=1,5,25  
 $5\omega^3$  5 $\omega^3$  35-1,5,7,35 (F=5 $\omega^3$ 

Simplify the product. (May use any method).

8. 
$$(3h - 7)(3h - 6)$$

9. 
$$(3x + 4)(2x - 6)$$

$$\begin{array}{c|c}
3 \times 4 \\
2 \times 6 \times^2 & 8 \times \\
-6 & -18 \times 1 - 24
\end{array}$$

$$8x+(-10x)=-10x$$

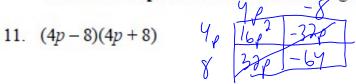
$$6x^{2}-10x-24$$

What is a simpler form of each product?

10. 
$$(7m + 5)^2$$
  $7m = 5$   $99 = 35m + 35m = 70m$   $5 = 35m + 25$   $99 = 70m + 25$ 

What is a simpler form of the following expressions?

11. 
$$(4p-8)(4p+8)$$



12. 
$$(7m^2-5)(7m^2+5)$$
  $7m^2-5$   $16p^2-64$ 

12.  $(7m^2-5)(7m^2+5)$   $7m^2$   $19m^4$   $19$