A1.U1.C3.D.05.**HW.AddAndSubtractPolynomials**

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HOMEWORK

Homework # 1

The first one is done for you.

1. $8p + 6$
   $-(4p + 2)$
   $4p + 4$

2. $9y^2 - 6y + 3$
   $-(5y^2 + 3y + 2)$
   $4y^2 - 3y + 1$

3. $5z^3 + 8z^2 + 5$
   $-(2z^3 + 3z^2 + 2)$
   $3z^3 + 5z^2 + 7$

4. $12k + 3$
   $+ 4k + 2$
   $16k + 5$

5. $6s^3 + 9s + 10$
   $+ 3s^3 + 4s - 10$
   $9s^3 + 13s$

6. $15a^4 + 6a^2 + a$
   $+ 6a^4 - 2a^2 + a$
   $21a^4 + 4a^2 + 2a$

7. $(5x^3 + 14) - (2x^3 - 1)$
   $-2x^3 + 1$
   $3x^3 + 15$

8. $(15g^2 + 6g - 3) - (10g^2 + 2g + 2)$
   $-10g^2 - 2g - 2$
   $5g^2 + 4g - 5$

9. $(12p^5 + 8) + (8p^5 + 6)$
   $20p^5 + 14$

10. $(11b^2 + 3b - 1) + (2b^2 + 2b + 8)$
    $13b^2 + 5b + 7$

Solve. The first problem is started for you.

11. Rebecca is building a pen for her rabbits against the side of her house. The polynomial $4n + 8$ represents the length and the polynomial $2n + 6$ represents the width.

    a. What polynomial represents the perimeter of the entire pen?

    $(4n + 8) + (4n + 8) + (2n + 6) + (2n + 6) =$ $(8n+16)+(4n+12)$

    $12n + 28$

    b. What polynomial represents the perimeter of the pen NOT including the side of the house?

    ~~$8n+6$~~ $12n+28-(2n+6)$

12. The polynomial $35p + 300$ represents the number of men enrolled in a college and $25p + 100$ represents the number of women enrolled in the same college. What polynomial shows the difference between the number of men and women enrolled in the college?

    $(35p+300)-(25p+100) = 10p+200$

HOMEWORK

Homework # 1

1. Which expression is equivalent to $2x + 6(x - 3)$?

   A $8x - 3$

   B $3x + 3$

   C $8x - 18$

   $6x - 18$

2. Find the product of $(t + 8)$ and $(t - 7)$.

   $T^2 + T - 56$

3. Multiply $11x + 3$ by 4.

   $44x + 12$

4. Which expression is **not** equivalent to $(x + 4)(x - 3)$?

   A $x^2 + 7x - 12$

   B $x^2 - 3x + 4x - 12$

   C $x(x - 3) + 4(x - 3)$

5. Multiply $(x + 2)(x + 3)$. What is the product?

   $x^2 + 5x + 6$

6. What is the product of $5(5x^2 + 2x - 4)$?

   $25x^2 + 10x - 20$

7. Multiply $(y + 6)^2(y + 6)$.

   $y^2 + 12y + 36$

8. Which product results in a difference of squares?

   A $(z - 9)(z + 9)$

   B $(z + 4)(z + 4)$

   C $(z - 8)(z - 8)$

9. A rectangular television screen has an area of $w^2 + 2w$ square inches. If the width of the television screen is w inches, what is the length of the television?

   w | $w+2$

   8

10. Celeste has a garden that has a length of $15x$ and a width of $3x + 5$ feet.

    a. Write a polynomial that represents the perimeter of the garden.

       $36x + 10$

    b. Write a polynomial that represents the area of the garden by multiplying $15x(3x + 5)$.

       $45x^2 + 75x$

    c. Find the area of the garden if $x = 3$ ft.

       $405 + 225 = 636 ft^2$