Answer key

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

HOMEWORK

Homework # 1

The first one is done for you.

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

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

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

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

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

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

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

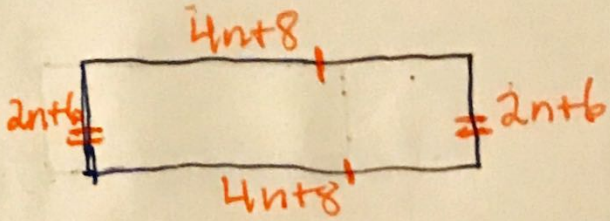
Solve. The first problem is started for you.

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?

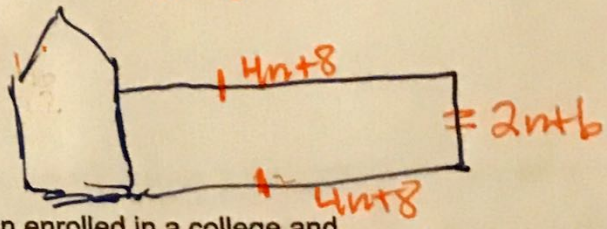
$(4n + 8) + (4n + 8) + (2n + 6) + (2n + 6) =$

$12n + 28$



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

$12n + 28 - (2n + 6)$
$12n + 28$
$-2n - 6$
$10n + 22$



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?

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

Answer Key

HOMEWORK

Homework # 1

1. Which expression is equivalent to $2x+6(x-3)$? $x=5$ Pick a # for x

   A $8x-3$

   B $3x+3$

   C $8x-18$ $8(5)-18 = 40-18 = 22$ $2(5)+6(5-3)$ $10+6(2) = 10+12 = 22$

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

   $(t+8)(t-7) = t^2+t-56$

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

   $4(11x+3) = 44x+12$

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

   A $x^2+7x-12$

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

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

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

OR x^2+x-12

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 $(y+6)(y+6)$.

   $y^2+12y+36$

8. Which product results in a difference of squares? $= (a-b)(a+b)$

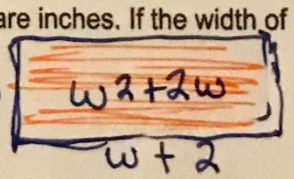
   A $(z-9)(z+9)$

   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?

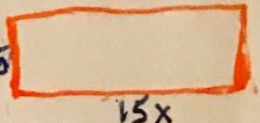
   $A = w(w+2) = w^2+2w$

   $A = \text{length} \cdot \text{width}$

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.

    $15x+15x+3x+5+3x+5 = 36x+10$

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

    $15x(3x+5) = 45x^2+75x$

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

    $45(3)^2+75(3)$

    $= 45 \cdot 9 + 225$

    $= 405+225$

    $= 630 ft^2$