Review Take-Home Quiz 1/14/21

1. What is the leading coefficient of this polynomial: $-x^4 - x^3 + 1$ LC = -1

2. What is the degree of this polynomial:

$4x^2 + 4x^3$ D = 3 Cubic

3. Identify the degree, coefficients, and constant of this polynomial:

$9 - 4x^3 - 9x^5 - x + x^4$

$-9x^5 + x^4 - 4x^3 - x + 9$

D = 5 (Quintic)

Coefficients: $-9, 1, -4, -1$

Constant: 9

4a. Simplify this Polynomial, and put in standard form. $-5(2x^2 - 4x) - 2x(3x^2 + 1)$

$-10x^2 + 20x - 6x^3 - 2x$

$-6x^3 - 10x^2 + 18x$

D= 3 #of terms = 3

4b. What is the first (degree) and last(# of terms) name of each Polynomial?

Cubic Trinomial

4c. What is the lead coefficient and the constant (if any)? LC = -6

No constant

5. $(3 - 6n^5 - 8n^4) - (-6n^4 - 3n - 8n^5)$

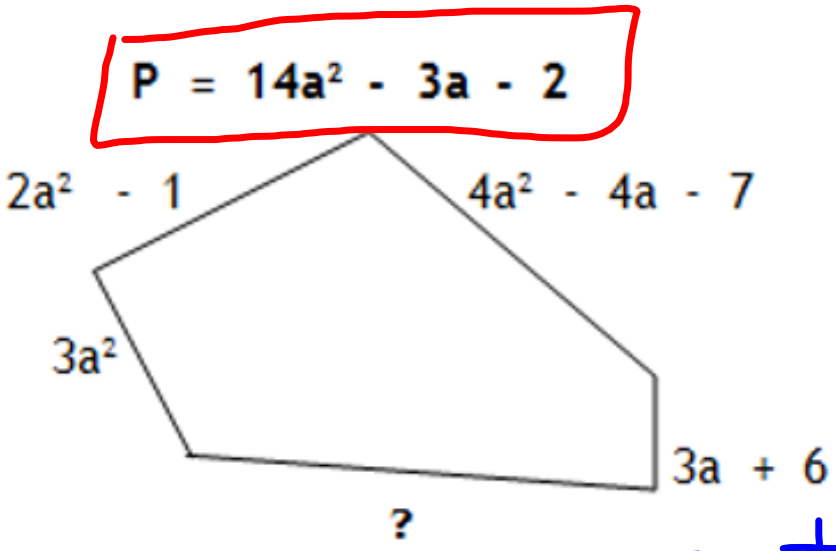
$3 - 6n^5 - 8n^4$

$+0 + 8n^5 + 6n^4 + 3n$

$3 + 2n^5 - 2n^4 + 3n$

$2n^5 - 2n^4 + 3n + 3$

6. Given the perimeter, find the missing side of the figure below.



$(14a^2-3a-2)-(9a^2-a-2)$

$14a^2-3a-2$

$-9a^2+a+2$

$5a^2-2a$ length of the missing side

$$4a^2 - 4a - 7$$
$$+2a^2 + 0 - 1$$
$$+3a^2 + 0 + 0$$
$$+0 + 3a + 6$$
$$9a^2 - 1a - 2$$

Sum of 4 sides.