



Polynomial Expressions and Area

Video Notes

[Video Link](#)

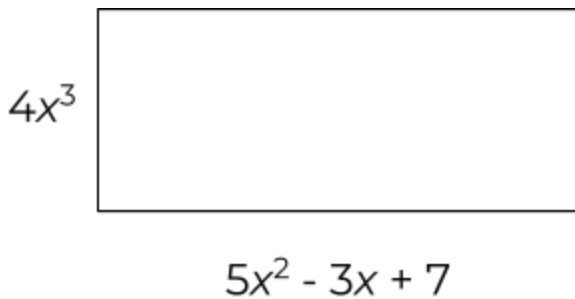
Polynomial Expressions and Area

Background Knowledge:

- Expanding and Simplifying Algebraic Expressions

Area \rightarrow The amount of space inside a figure.

Determine the area of the rectangle below.

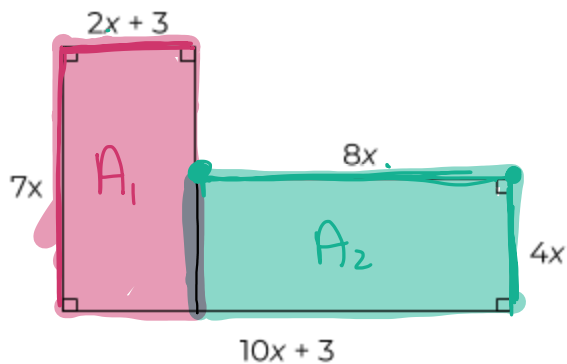


$$4x^3(5x^2 - 3x + 7)$$

* You must have brackets/parentheses around an expression when multiplying.

$$A = 4x^3(5x^2 - 3x + 7)$$
$$A = 20x^5 - 12x^4 + 28x^3$$

Determine the area of the region below.

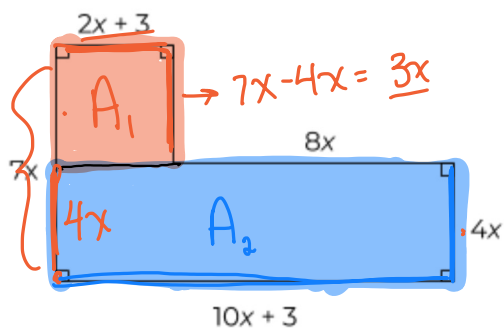


$$A = A_1 + A_2$$

$$A = 7x(2x+3) + 4x(8x)$$

$$A = 14x^2 + 21x + 32x^2$$

$$A = 46x^2 + 21x$$



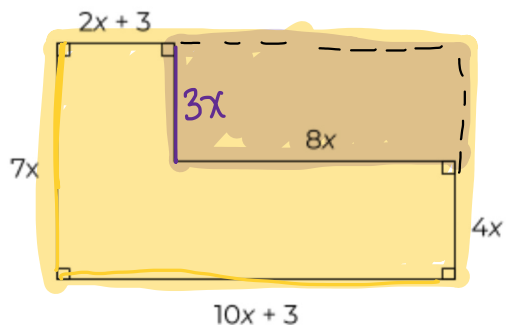
$$A = A_1 + A_2$$

$$A = 3x(2x+3) + 4x(8x)$$

$$A = 6x^2 + 9x + 32x^2$$

$$A = 38x^2 + 9x$$

* Do NOT forget the brackets/parentheses



$$A = A_1 - A_2$$

$$A = 7x(10x+3) - 3x(8x)$$

$$A = 70x^2 + 21x - 24x^2$$

$$A = 46x^2 + 21x$$