

9/21/18

## Multiply Polynomials

$$3x(4x^3) = 12x^4$$

$$4a^3(2a^3 - 3a + 7) = 8a^6 - 12a^4 + 28a^3$$

$$(2x+5)(3x-4) = 6x^2 - 8x + 15 - 20$$

$$(2x+5)(2x-5) = 4x^2 - 10x + 10x - 25$$

$$= 4x^2 - 25$$

↑  
difference of squares

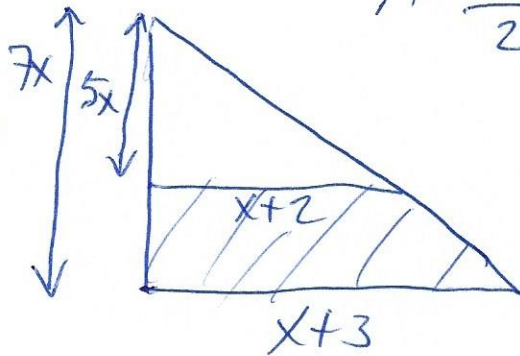
$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$$

$$(2x+5)^3 = (2x)^3 + 3(2x)^2(5) + 3(2x)(5)^2 + 5^3$$
$$= 8x^3 + 60x^2 + 150x + 125$$

Web Assign

$$A_{\text{total}} - A_{\text{white}} = A_{\text{shaded}}$$



$$A = \frac{bh}{2}$$

$$(x+8)(5x+10) = \frac{(x+8)(5x+10)}{2}$$

$$= \frac{5x^2 + 10x + 40x + 180}{2} = \frac{5x^2 + 50x + 180}{2}$$