

8-22-17 3<sup>rd</sup> Trig

Simplify  $3n + 7$   
Unit                      Variable                      #

$$3 \text{ dogs} + 2 \text{ cats} + 2 \text{ dogs} + 5 \text{ cats} \\ = 5 \text{ dogs} + 7 \text{ cats}$$

$$\textcircled{1} \quad \underbrace{3x^2} + \underbrace{6x} + \underbrace{5} + \underbrace{2} + \underbrace{7x} - \underbrace{2x^2} \\ x^2 + 13x + 7$$

$$\textcircled{2} \quad \underbrace{6xy^2} + \underbrace{3x^2y} + \underbrace{2x^2y} - \underbrace{2xy^2} \\ 4xy^2 + 5x^2y$$

$$\textcircled{3} \quad (2n)(5n) + (3n)^2 \quad 3n \cdot 3n \\ 10n^2 + 9n^2 \\ 19n^2$$

$$\textcircled{4} (2n^2)^3 \cdot 2n + (5n)^2 \cdot n^5$$

$$2n^2 \cdot 2n^2 \cdot 2n^2 \cdot 2n + 5n \cdot 5n \cdot n^5$$

$$16n^7 + 25n^7$$

$$41n^7$$

$$\textcircled{5} 8n^2 \cdot 2n^3 + (n^3)^2 + 3n^2 \cdot 5n^3$$

$$8nn \cdot 2nnn + n^3 \cdot n^3 + 3nn \cdot 5nnn$$

$$16n^5 + n^6 + 15n^5$$

$$31n^5 + n^6$$

$$\textcircled{6} 2n^4 \cdot (3n)^2 + 5n^5 \cdot (n) \cdot 2$$

$$2nnnn \cdot 3n \cdot 3n + 5nnnnn \cdot n \cdot 2$$

$$18n^6 + 10n^6$$

$$28n^6$$

$$\textcircled{7} (n+3)(n+10)$$

Mr. H + Mrs. H      Mr. Smith   Mrs. Smith

$$(n+3)(n+10)$$

$$n^2 + 10n + 3n + 30$$

$$n^2 + 13n + 30$$

$$\textcircled{8} (n+10)(n^2+3n+2)$$

$$n^3 + 3n^2 + 2n + 10n^2 + 30n + 20$$

$$n^3 + 13n^2 + 32n + 20$$

	$n^2$	$3n$	$2$
$n$			
$10$			

$$\textcircled{9} (2x^3)^2(2x)^2 + (3x^2)^4$$

$$2x^3 \cdot 2x^3 \cdot 2x \cdot 2x + 3x^2 \cdot 3x^2 \cdot 3x^2 \cdot 3x^2$$

$$16x^8 + 81x^8$$

$$97x^8$$