SECTION 4.3 - MULTIPLYING POLYNOMIALS

REVIEW:

① SIMPLIFY $(2x^2 - 7) + (8 - 5x^2)$

② GIVE THE FORMULA FOR THE nTH TERM OF: 2, 4, 8, 16, ...

③ GIVE THE FORMULA FOR THE nth TERM OF: 2, 4, 6, 8, ...

③ GIVEN THE DATA BELOW, PREDICT A TEST SCORE FOR A PERSON WHO STUDIES FOR 44 MINUTES

TIME STUDIED (MIN)	10	15	23	25	30	48
TEST GRADE	48	62	70	77	80	92

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* MULTIPLYING BINOMIALS *

EXAMPLE 1. DISTRIBUTIVE PROPERTY

(A) $(2x + 3)(x + 5) =$

(B) $(x - 2)(3x + 4) =$

APPLICATION 1.

① $(3m + 4)(m + 5) =$

② $(5y - 2)(y + 8) =$

EXAMPLE 2. "FOIL" METHOD

F =

O =

I =

L =

(A) $(2y-7)(3y+5)=$

(B) $(4a-5)(2a-9)=$

APPLICATION 2.

(1) $(x+3)(x-4)$

(2) $(4b-5)(3b+2)$

(3) $(2y-5)(y-6)$

(4) $(5a+2)(3a-4)$

EXAMPLE 3. "BOX" METHOD.

(A) $(3x+2)(2x-3)$

(B) $(-2a+5)(-3a-2)$

APPLICATION 3.

(1) $(7x-2)(2x+2)$

(2) $(4b-6)(3b+2)$

* MULTIPLYING POLYNOMIALS *

EXAMPLE 4. $(6x+5)(2x^2-3x-5)$

"FOIL" "BOX"

EXAMPLE 5. $(2y^2+3y-1)(3y^2-5y+2)$

APPLICATION 4

(1) $(3x-5)(2x^2+7x-8)$

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

PRACTICE. FIND EACH PRODUCT. (ANY METHOD.)

(1) $(3c-5)(c+3)$

(2) $(9+10)(2g-5)$

(3) $(x-1)(x+1)$

(4) $(6a+5)(5a+3)$

(5) $(4x+1)(6x+3)$

(6) $(5y-4)(3y-1)$

(7) $(11z-5y)(3z+2y)$

(8) $(8w+4x)(5w-6x)$

(9) $(2y-11)(y^2-3y+2)$

(10) $(4a+7)(9a^2+2a-7)$

(11) $(m^2-5m+4)(m^2+7m-3)$

(12) $(x^2+5x-1)(5x^2-6x+1)$

(13) $(3b^2-4b-7)(2b^2-b-9)$

(14) $(6z^2-5z-2)(3z^3-2z-4)$

SIMPLIFY:

(15) $(3x^2+2)+(5x^2+x-3)$

(16) $3(2x^3+5)+2x(3x+1)$

(17) $(x-4)\left[(x^2+3x+8)-(x^2-2x+6)\right]$

(18) FIND THE SHADED AREA.