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Algebra - Downing

Go over HW

Lesson 2B - Multiplying Polynomials

Ex) $(x+5)(x^2-3x-2) = x^3 - 3x^2 - 2x + 5x^2 - 15x - 10$
 $ = x^3 + 2x^2 - 17x - 10$

Ex) $(n-3)(n^2-2n+4) = n^3 - 2n^2 + 4n - 3n^2 + 6n - 12$
 $ = n^3 - 5n^2 + 10n - 12$

Ex) $(3x+4)^2$
 $(3x+4)(3x+4)$
 $9x^2 + 12x + 12x + 16$
 $9x^2 + 24x + 16$

Ex) $(4x-y)^2$
 $(4x-y)(4x-y)$
 $16x^2 - 4xy - 4xy + y^2$
 $16x^2 - 8xy + y^2$

Ex) $(2x+3y)(2x-3y)$
 $4x^2 - 6xy + 6xy - 9y^2$
 $4x^2 - 9y^2$

Worksheet #1-17 odds

Lesson 3: Solving Factored Polynomials

Solve: ← Factored Form

$$(x-1)(x-2) = 0$$

$x-1=0$	$x-2=0$
$+1 \quad +1$	$+2 \quad +2$
$x=1$	$x=2$

Solve

Ex) $(x-3)(x+4) = 0$

$$\begin{array}{r} x-3=0 \\ +3 \quad +3 \\ \hline \end{array} \quad \begin{array}{r} x+4=0 \\ -4 \quad -4 \\ \hline \end{array}$$

$$x=3$$

$$x=-4$$

Ex) $(2x+3)(3x-5) = 0$

$$\begin{array}{r} 2x+3=0 \\ -3 \quad -3 \\ \hline \end{array} \quad \begin{array}{r} 3x-5=0 \\ +5 \quad +5 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{-3}{2}$$

$$\frac{3x}{3} = \frac{5}{3}$$

$$x = -\frac{3}{2}$$

$$x = \frac{5}{3}$$

Ex) $2x(3x-4) = 0$

$$\begin{array}{r} 2x=0 \\ \cancel{2} \quad \cancel{2} \\ \hline \end{array} \quad \begin{array}{r} 3x-4=0 \\ +4 \quad +4 \\ \hline \end{array}$$

$$x=0$$

$$\frac{3x}{3} = \frac{4}{3}$$

$$x = \frac{4}{3}$$

Packet # 21-27

NB Quiz