

Warm Up

Solve the equation.

1) $(x - 42)(x + 12) = 0$

$$\begin{array}{r} x - 42 = 0 \\ +42 \quad +42 \\ \hline x = 42 \end{array}$$

$$\begin{array}{r} x + 12 = 0 \\ -12 \quad -12 \\ \hline x = -12 \end{array}$$

~~$(x = 42)(x = -12)$~~

Factor.

2) $x^2 - 10x + 16$

~~$(x-2)$~~
 ~~$(x-8)$~~
 $x = -2$
 $x = -8$
 $\begin{array}{r} 16 \\ -2 \quad -8 \\ \hline -10 \end{array}$

~~$x + 42$~~
 ~~$x - 12$~~

$(x-2)(x-8)$

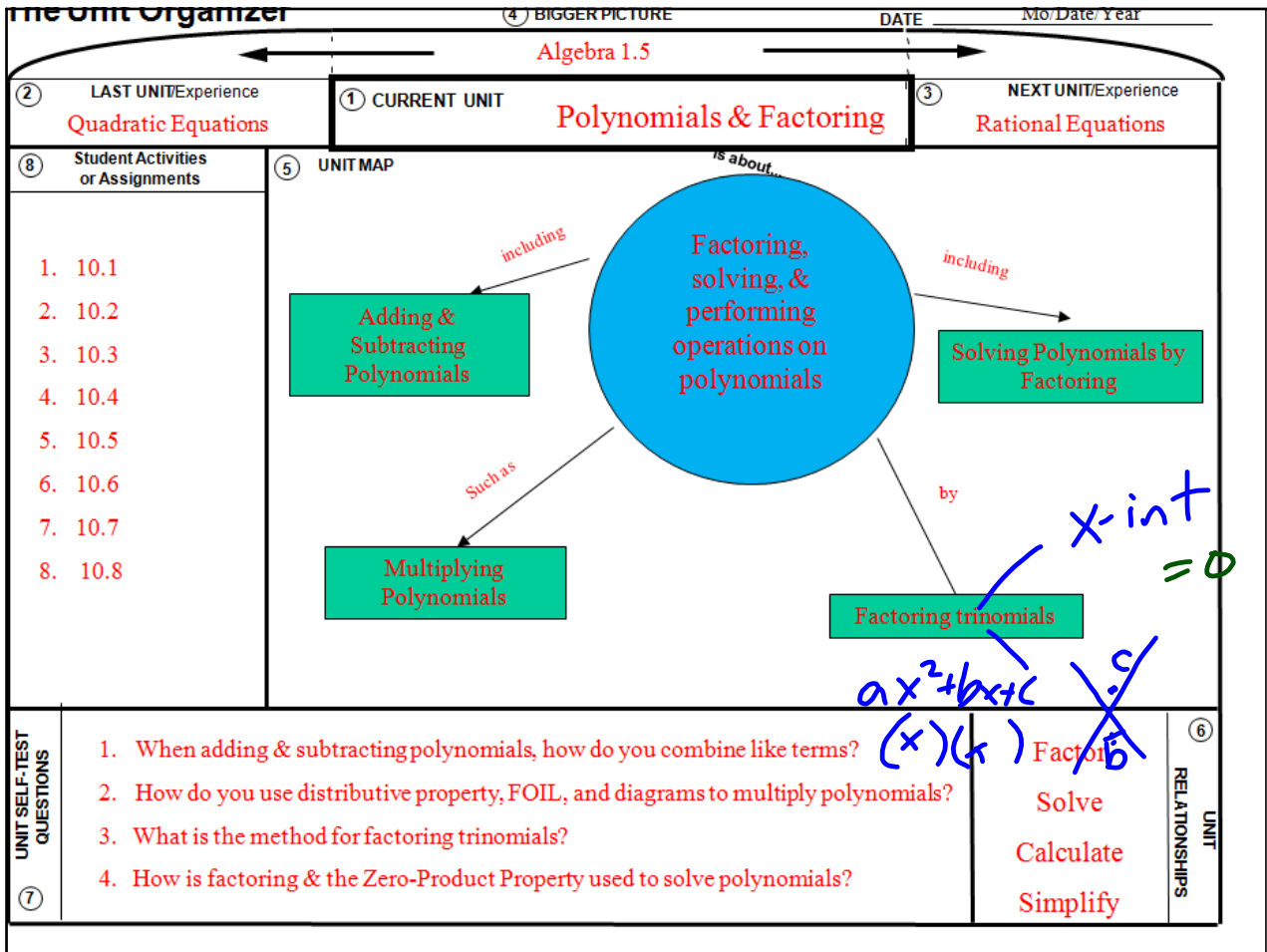
10.4-10.5 out of 21 pts

A - 19

B - 17

C - 15

D - 13



Example 5: Solve a Quadratic Equation

Solve $x^2 + 9x = -14$ by factoring.

Handwritten work:

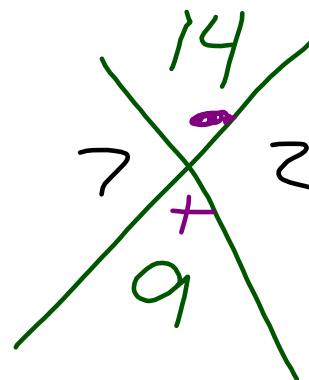
$$x^2 + 9x + 14 = 0$$

Bottom Top

$$(x+7)(x+2) = 0$$

$$x+7=0 \quad x+2=0$$

$$x = -7 \quad x = -2$$



Try It

5) Solve the equation $x^2 + 4x - 21 = 0$ by factoring.

$$(x+7)(x-3) = 0$$

$$x+7=0$$

$$-7 \quad -7$$

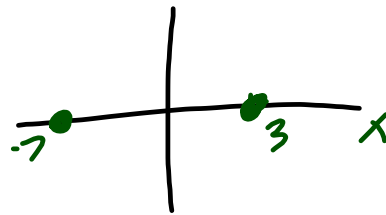
$$x = -7$$

$$x-3=0$$

$$+3 \quad +3$$

$$x = 3$$

$$\begin{array}{r} -21 \\ \times \\ -3 \quad 7 \\ \hline 21 \quad -21 \\ \hline 0 \end{array}$$



Steps to solve

1) $= 0$

(standard form)

2) $\begin{array}{r} c \\ \times \\ b \end{array}$

middle

3) $(x \quad)(x \quad) = 0$

Factored Form

4) Solve $x = \quad x =$

Homework

10.5 "9.8" wkst

#17-28 (show work on
separate sheet)