

Name: _____ Algebra 10 Unit 7 Lesson 6

Factoring Completely

DO NOW ~ Wednesday 11/20

Factor (unFOIL).

$x^2 + 3x - 40$

$(x - 5)(x + 8)$

① GCF ???



Classwork

Factor (GCF).

$$\underline{-40a^2} - \underline{32}$$

$$-8(5a^2 + 4)$$

Factor completely (GCF, DOPS or unFOIL?)

$$25p^2 - 1$$

$$(5p + 1)(5p - 1)$$

Factor completely.

① GCF?
* Trinomial - unFOIL

$$\checkmark 2x^2 + 20x + 42$$

$$2(1x^2 + 10x + 21)$$

$$2(x + 3)(x + 7)$$

Diagram showing the FOIL process for $(x + 3)(x + 7)$:

$$\begin{array}{r} 1x^2 \\ + 3x \\ + 7x \\ + 21 \\ \hline 10x \end{array}$$

Factors: $1, 21$ and $3, 7$

Factor completely.

① GCF ???

$$5x^2 - 10x - 40$$

$$5(1x^2 - 2x - 8)$$

$$5(x - 4)(x + 2)$$

Diagram showing the FOIL process for $(x - 4)(x + 2)$:

$$\begin{array}{r} 1x^2 \\ - 4x \\ + 2x \\ - 8 \\ \hline -2x \end{array}$$

Factors: $1, 8$ and $2, 4$

① GCF?

② Binomial - Dops

DO NOW ~ Thursday 11/21

Factor completely.

$$5x^2 - 45$$

$$5(x^2 - 9)$$

$$5(x+3)(x-3)$$

③ Trinomial - unfull



Classwork

1, 12
2, 6
3, 4

Factor Completely.

$x^3 + 7x^2 + 10x$

$x(x^2 + 7x + 10)$

$x(x+5)(x+2)$

1, 10
2, 5

$\frac{5x}{2x} \quad 7x$

$4x^3 + 10x^2 - 24x$

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

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

$-3x \quad 8x \quad 5x$

$2x^3 - 2x$

$2x(x^2 - 1)$

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

$30x^2 + 20x - 10$

$10(3x^2 + 2x - 1)$

$10(3x-1)(x+1)$

$-1x \quad 3x \quad 2x$

① GCF ???????

DO NOW ~ Friday 11/22

1,5

② Binomial →

Dops

Factor Completely.

Trinomial
↓

unFOIL

$$6x^2 + 33x + 15$$

$$3(2x^2 + 11x + 5)$$

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

10x 1x + 11x



1,10
2,5

Classwork

Factor Completely.

$$1x^3 + 7x^2 + 10x$$

$$1x(1x^2 + 7x + 10)$$

$$x(x + 5)(x + 2)$$

5x + 2x 7x

$$5x^2 - 45$$

$$5(1x^2 - 9)$$

$$5(x + 3)(x - 3)$$

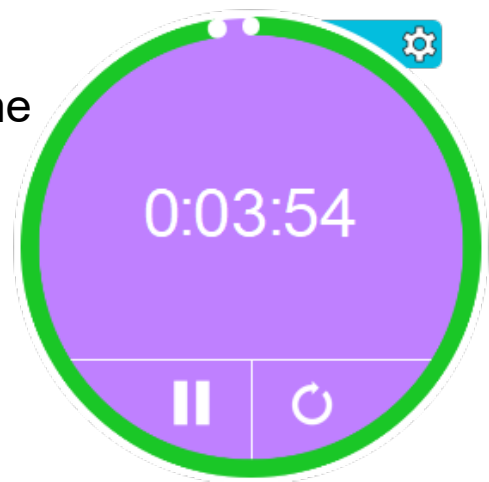
2

$$4x^3 + 10x^2 - 24x$$

$$2x^3 - 2x$$

To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator or grab one
- 3) Have last night's homework out
- 4) Complete the do now



DO NOW ~ Monday 11/25

Factor Completely.

$$\begin{array}{c} 2, 3 \\ \hline 1, 9 \end{array}$$

$$2n^2 - 16n - 18$$

$$2(n^2 - 8n - 9)$$

$$2(n - 9)(n + 1)$$

GCF ??

Classwork

Factor Completely.

$$1b^2 - 2b$$

$$1b'(1b' - 2)$$

$$4v^2 + 16v + 12$$

$$4(v^2 + 4v + 3)$$

$$4(v + 1)(v + 3)$$

$$3x^2 + 24x + 45$$

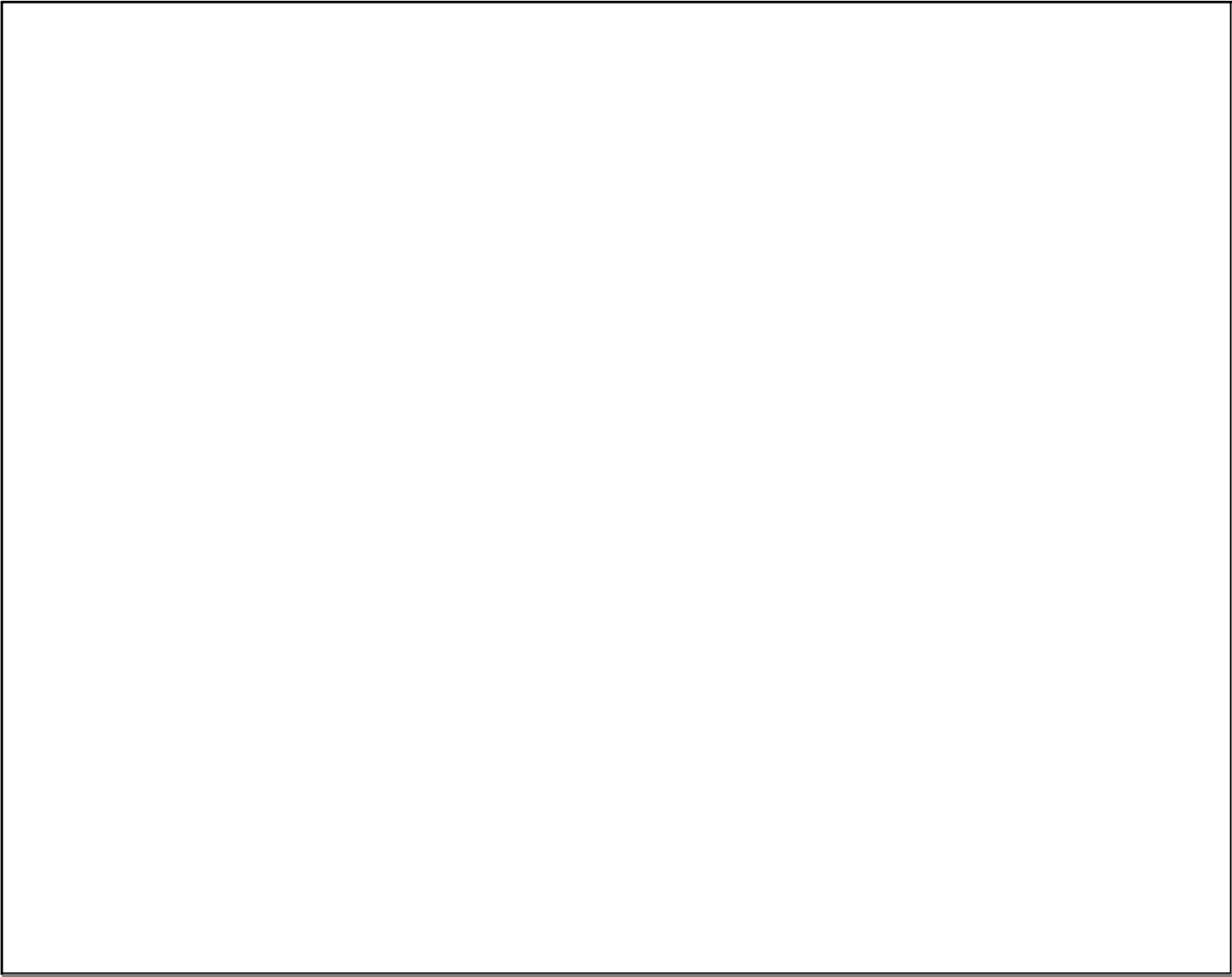
$$3(x^2 + 8x + 15)$$

$$3(x + 5)(x + 3)$$

$$r^2 + 4r$$

$$1r'(1r' + 4)$$

$$r(r + 4)$$



Computer Station ~ Delta Math

Complete the Delta Math “Factor (unFOIL)” assignment. This will be part of your Quarter 2 grade.

Use the space below to show your work.

Mrs. Kennedy's Station ~ Factoring COMPLETELY**Factor COMPLETELY.****1)** *Is there a GCF? If so, factor...***2)** *Look at what is left...Is it a Binomial or Trinomial?*

BINOMIAL → DOPS

TRINOMIAL → unFOIL

$$4x^2 + 20x + 24$$

$$10x^2 + 15x - 10$$

$$3x^3 - 21x^2 + 36x$$

$$7x^2 + 21x - 70$$

Homework ~ Wednesday 11/20**Factor completely.**

$$36 - 4x^2$$

$$6k^2 - 2k - 28$$

Homework ~ Thursday 11/21**Factor completely.**

$$20x^2 - 125$$

$$14r^2 - 62r + 60$$

Homework ~ Monday 11/25**Factor completely.**

$$12x^2 - 3$$

$$4x^2 + 18x - 36$$

Name: _____ Factoring Graded Classwork

Factor (GCF).

$$80v^3 - 8v^2 + 72$$

$$12m + 12m^2 + 6m^3$$

$$-4a^5 + 20a + 36$$

Factor (DOPS).

$$9x^2 - 16$$

$$4b^2 - 25$$

$$25x^2 - 16$$

Factor (unFOIL).

$$a^2 + 11a + 30$$

$$x^2 + 12x + 20$$

$$3n^2 + 14n + 16$$

