Today's Plan:
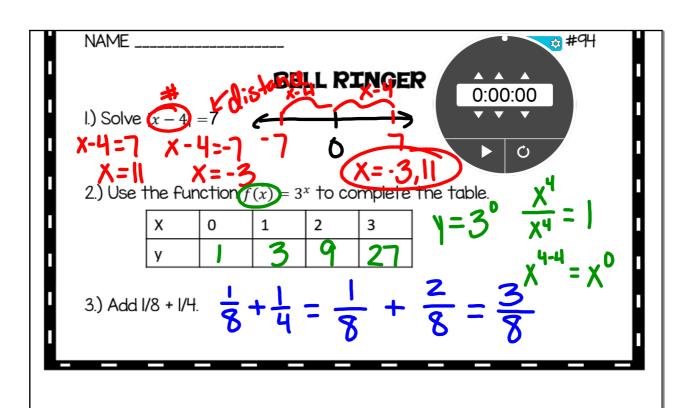
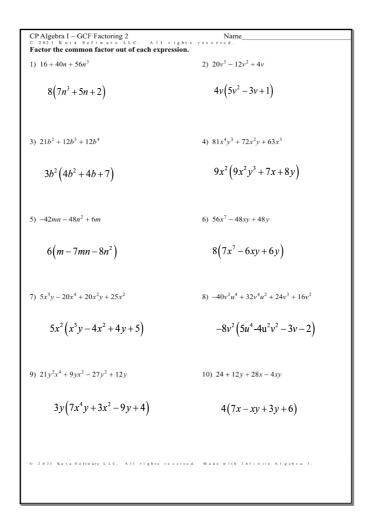*Learning Target (standard)*: I will factor GCF's out of polynomial expressions.

Students will: Complete practice problems over previous concepts at the boards, put up homework problems on the board and make necessary corrections to their own work, take notes over new material and complete practice problems over new concepts.

Teacher will: Provide practice problems over previous concepts, check homework problems for accuracy and provide students feedback, describe and provide examples of new concepts and assign students assessment problems over new concepts.

Assessment: Board work, homework check and homework assignment

Differentiation: Students will work at the board, go over and correct homework at their seats, actively engage in lecture over new concepts, practice new concepts with the aid of other students and the teacher and complete homework assignment.

NAME _____   #94

BELL RINGER   0:00:00

1.) Solve $x - 4 = 7$

$x - 4 = 7$ $x - 4 = -7$ $-7 \quad 0 \quad 7$
$x = 11$ $x = -3$

$x = -3, 11$

2.) Use the function $f(x) = 3^x$ to complete the table.

X	0	1	2	3
y	1	3	9	27

$y = 3^0$ $\dfrac{x^4}{x^4} = 1$

$x^{4-4} = x^0$

3.) Add 1/8 + 1/4. $\dfrac{1}{8} + \dfrac{1}{4} = \dfrac{1}{8} + \dfrac{2}{8} = \dfrac{3}{8}$

CP Algebra I ~ GCF Factoring 2   Name_____
Factor the common factor out of each expression.

1) $16 + 40n + 56n^3$

$$8\left(7n^3 + 5n + 2\right)$$

2) $20v^3 - 12v^2 + 4v$

$$4v\left(5v^2 - 3v + 1\right)$$

3) $21b^2 + 12b^3 + 12b^4$

$$3b^2\left(4b^2 + 4b + 7\right)$$

4) $81x^4y^3 + 72x^2y + 63x^3$

$$9x^2\left(9x^2y^3 + 7x + 8y\right)$$

5) $-42mn - 48n^2 + 6m$

$$6\left(m - 7mn - 8n^2\right)$$

6) $56x^7 - 48xy + 48y$

$$8\left(7x^7 - 6xy + 6y\right)$$

7) $5x^5y - 20x^4 + 20x^2y + 25x^2$

$$5x^2\left(x^3y - 4x^2 + 4y + 5\right)$$

8) $-40v^2u^4 + 32v^4u^2 + 24v^3 + 16v^2$

$$-8v^2\left(5u^4 - 4u^2v^2 - 3v - 2\right)$$

9) $21y^2x^4 + 9yx^2 - 27y^2 + 12y$

$$3y\left(7x^4y + 3x^2 - 9y + 4\right)$$

10) $24 + 12y + 28x - 4xy$

$$4\left(7x - xy + 3y + 6\right)$$

Based on our post-test in Edulastic and your test over operations on polynomials and exponents, which topic do you feel you need more practice with and why?

- combining like terms

- distributive property

- raising powers to powers

- GCF factoring

- all of the above

Simplify.   "Combing Like Terms"

$$4x\left(-2x^2 - 3x + 5\right) - 3x^2\left(2x^2 - 6x + 1\right)$$

$$-8x^3 - 12x^2 + 20x - 6x^4 + 18x^3 - 3x^2$$

$$-6x^4 + 10x^3 - 15x^2 + 20x$$

Simplify.   "Powers to Powers"

$$\left(-2x^3y^2z\right)^4\left(3x^4y^5z^3\right)^3$$

$$(-2)^4 x^{12} y^8 z^4 \cdot (3)^3 x^{12} y^{15} z^9$$

$$16\, x^{12} y^8 z^4 \cdot 27 x^{12} y^{15} z^9$$

$$432\, x^{24} y^{23} z^{13}$$

Simplify. "Distributive Property"

$$(-3x+2)(2x^2-4x+5)$$

$$-6x^3+12x^2-15x+4x^2-8x+10$$

$$-6x^3+16x^2-23x+10$$

Factor. "GCF Factoring"

$$\frac{-8r^4}{-2r^2}-\frac{4r^3}{-2r^2}-\frac{6r^2}{-2r^2}$$

GCF: $-2r^2$

$$-2r^2\left(4r^2+2r+3\right)$$

Based on the last 4 problems, you will pick which skill you feel you need more practice with and will be provided with additional board problems under this skill. If you would like to practice ALL of the skills, you can do that as well.

Combining Like Terms: Board #1-3

Powers to Powers: Board #4-7

Distributive Property: Board #8-10

GCF Factoring: Board #11-14

All Skills: Board #15-18

Assignment:

Polynomial & GCF Factoring Practice #1-20

Based on the group of problems you practiced in class, choose any 10 problems you feel you need additional practice with or that will showcase your knowledge! Make sure the 10 problems you pick benefit your learning!