Bellwork Alg 2 Tuesday, October 2, 2018.

Solve each by factoring. Remember, one side has to be zero to solve by factoring.

1. $x^2 + 10x = 24$

2. $24x^3 - 150x = 0$

3. $18x^2 + 39x - 84 = 0$

4. Solve this equation: $7x^2 + 5 = 33$

Bellwork Alg 2 Tuesday, October 2, 2018. Answers

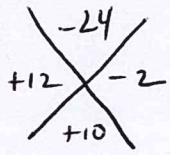
Solve each by factoring. Remember, one side has to be zero to solve by factoring.

1. $x^2 + 10x = 24$

$-24 \quad -24$

NO GCF

$x^2 + 10x - 24 = 0$



$(x+12)(x-2) = 0$

$x+12=0 \qquad x-2=0$

$x = -12, 2$

2. $24x^3 - 150x = 0$

GCF = $6x$

$6x(4x^2 - 25) = 0$

$6x(2x+5)(2x-5) = 0$

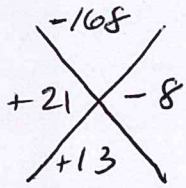
$6x=0 \qquad 2x+5=0 \qquad 2x-5=0$

$x = 0, -5/2, 5/2$

3. $18x^2 + 39x - 84 = 0$

GCF = 3

$3(6x^2 + 13x - 28) = 0$



	2x	+7
3x	$6x^2$	+21x
-4	-8x	-28

$3(2x+7)(3x-4) = 0$

$2x+7=0 \qquad 3x-4=0$

$x = -7/2, 4/3$

4. Solve this equation: $7x^2 + 5 = 33$

$-5 \quad -5$

$\frac{7x^2}{7} = \frac{28}{7}$

$\sqrt{x^2} = \sqrt{4}$

$x = \pm 2$