

4.4b GCF & Zeros

GCF means Greatest Common Factor

Check out each. What divides into all the terms?

a) $5x^2 - 45$

* Common 5

$5(x^2 - 9)$

* keep going!

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

b) $6a^2 - 14a + 8$

* Common 2

$2(3a^2 - 7a + 4)$

$2(3a-4)(a-1)$

c) $12p^2 - 21p + 3$

* Common 3

$3(4p^2 - 7p + 1)$

can't factor further

d) $-5z^2 + 20z$

* Common $-5z$

$-5z(z-4)$

Solve Quadratic Equations - yup, same as before

a) $3x^2 + 10x - 8 = 0$

1 - 3

1 - 8

2 - 4

-1 - 8

-2 - 4

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

$-2x + 12x = 10x$

b) $5p^2 - 16p + 15 = 4p - 5$

-4p

-4p

$5p^2 - 20p + 15 = -5$

$+5 \quad +5$

$5p^2 - 20p + 20 = 0$

Get all on same side

Factor out 5

$5(p^2 - 4p + 4) = 0$

Factor!

$5(p-2)(p-2) = 0$

Set each Variable = 0 (Ignore 5)

~~5~~ $p-2=0$ or $p-2=0$
same!

$p-2=0$

$p=2$

Factor

Set each = to 0

So $3x-2=0$ or $x+4=0$

$3x=2$

$x = \frac{2}{3}$ or $x = -4$

2263!

22, 25, 28, 33-39 odd,

Try 50, 52, 64

15 = 225