

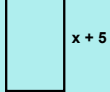
Algebra II

Factoring GCF and trinomials
with a=1Bell Ringer $A = lw$

Find the area of this rectangle.

1.  $x+2$

$$14(x+2)$$
$$14x+28$$

2.  $x+5$

$$(x-1)(x+5)$$
$$x^2+5x-1x-5$$
$$x^2+4x-5$$

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Remember when we found two numbers that had a product but added to be another number? We are going to use that today.

1. Product 16 and sum 10 $8 \text{ and } 2$

2. Product -20 and sum -8

$$-5+4=-1$$
$$-10 \cdot 2$$

$$y = \underline{a}x^2 + \underline{b}x + \underline{c}$$

So we find the product of c and the sum of b

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Let us Factor...

1. $x^2 + 6x + 8$ 2. $x^2 + 12x + 35$

$\frac{8}{1 \cdot 8}$
 $\frac{8}{2 \cdot 4}$ $\frac{35}{1 \cdot 35}$
 $\frac{35}{5 \cdot 7}$

$(x+2)(x+4)$ $(x+5)(x+7)$

$x^2 + 4x + 2x + 8$
 $x^2 + 6x + 8$

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3. $x^2 + 2x - 8$ 4. $x^2 - 5x - 14$

$\frac{-8}{-2 \cdot 4}$ $(x-7)(x+2)$

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

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5. $x^4 + 6x^3 + 5x^2$ 6. $2h^2 - 12h + 18$

$x^2(x^2 + 6x + 5)$ $2(h^2 - 6h + 9)$

$x^2(x+1)(x+5)$ $2(h-3)(h-3)$

$2(h-3)^2$

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7. $2n^3 - 20n^2 + 50n$ 8. $3n^2 - 15n + 18$

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Now we are going to do a matching exercise with your new partner.

$x^2 + 14x + 24$	$(x+2)(x+12)$
$x^2 + 10x + 24$	$(x+4)(x+6)$
$x^2 - 5x - 24$	$(x-8)(x+3)$
$x^2 + 10x - 24$	$(x+12)(x-2)$
$x^2 - 11x + 24$	$(x-3)(x-8)$

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Conclusion

1. What is the first thing you always check for when you factor? **GCF**
2. You have to find the product of c and the sum of b.
3. Write down on a post it your factoring ability. **(1 don't understand at all to 5 awesome)** Then write a sentence of a question you need answered and put your initials on it. Place on door as you exit.

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Assignment

Factoring GCF and trinomials with a=1 Worksheet

$$x^2 + 14x + 24$$

$$x^2 + 10x + 24$$

$$x^2 - 5x - 24$$

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

$$x^2 - 11x + 24$$

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