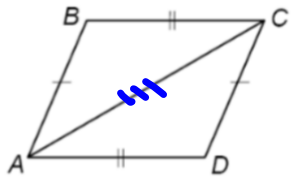
Find and sit in new seat!

Bell Ringer


**Tuesday 5/14**

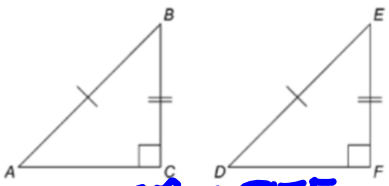
Identify the theorem of postulate that determines whether the triangles are congruent. If they are congruent, write a congruence statement. If they are not congruent, write "Not Possible."

1. SSS



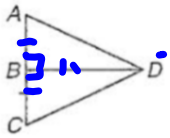

△ABC ≅ △CDA by SSS

2. HL




△ABC ≅ △DEF by HL

3. SAS




△ABD ≅ △CBD. by SAS

# Multiply the following binomials (foil or box method)

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

$x^2 - 5x + 5x - 25 = x^2 - 25$

$(3k-7j)(3k+7j)$

| | $3k$ | $-7j$ |
|---|---|---|
| $3k$ | $9k^2$ | $-21jk$ |
| $+7j$ | $21jk$ | $-49j^2$ |

$9k^2 - 49j^2$

$(a + b)(a - b) = a^2 - b^2$

$a^2 - ab + ab - b^2$

Factor the trinomials...

$x^2 - 100$

$(x+10)(x-10)$

$x^2 - 144$

$(x+12)(x-12)$

$4x^2 - 25$

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

$25x^2 - 49y^2$

$(5x+7y)(5x-7y)$

$25x^4 - 81x^{10}$

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

## Difference of Squares

$$a^2 - b^2 = (a+b)(a-b)$$

Examples:

$$9x^2 - 16$$
$$= (3x)^2 - 4^2$$
$$= (3x+4)(3x-4)$$

$$4x^2 - 81y^2$$
$$= (2x)^2 - (9y)^2$$
$$= (2x+9y)(2x-9y)$$

I have who has...

I have $(x+10)(x-10)$

who has f.f of $x^2-144$?

I have $(x+12)(x-12)$

kahoot.it

# 810080

# due Thursday

Name: _____Hr:____

## Factoring Difference of Squares, Greatest Common Factor, and by Grouping

**Factor the Difference of Squares**

1. $m^2 - 16$

2. $4k^2 - 81$

3. $3r^2 - 27$

4. $x^2 - 49$

**Factor by factoring out the greatest common factor**

5. $7x^{10} + 7x^9$

6. $6x^3 - 3x^2 - 8x$

**Factor by grouping**

7. $6x^3 + 9x - 4x^2 - 6$

8. $2x^2y + 6xy - x - 3$

**Now practice factoring all types together**

9. $81b - 18$

10. $y^2 - 64$

11. $10x^4 + 5x^2$

12. $4k + 12 + k^2 + 3k$

13. $4x^2 - 25$

14. $2ac + ad + 6bc + 3bd$

15. $6x^3 + 9x - 4x^2 - 6$

16. $2x^2 - 8$