AGENDA ➡

MON 2/10

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TO-DO

1) Jumping straight to notes

REMINDERS

ALL electronics should be put away in your **BAG!**

Jul 31-9:37 PM
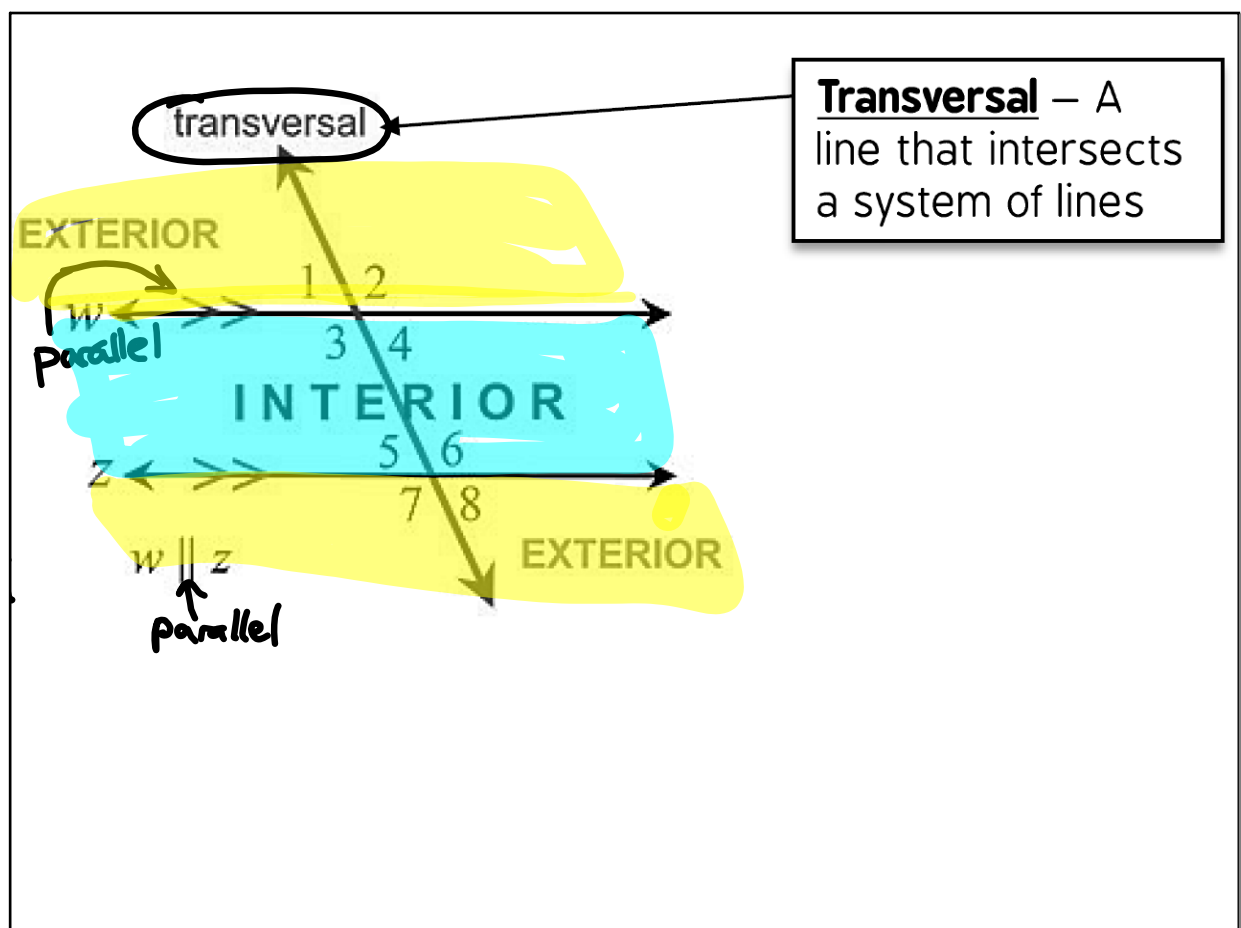
What am I learning today?

Learning Objective 2A.4

How to describe and use the different angle relationships in parallel lines

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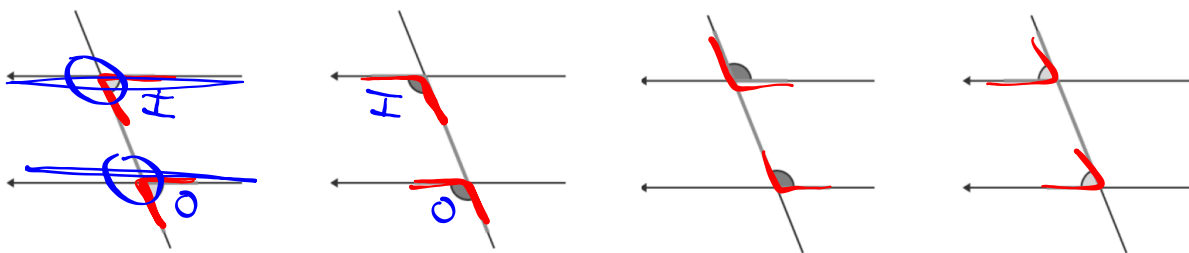
What will I do to show that I have learned it?

I can...

Set pairs of angles equal to each other OR equal to 180º

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transversal

Transversal – A line that intersects a system of lines

EXTERIOR

1 2
3 4

INTERIOR

5 6
7 8

EXTERIOR

w
Parallel

z
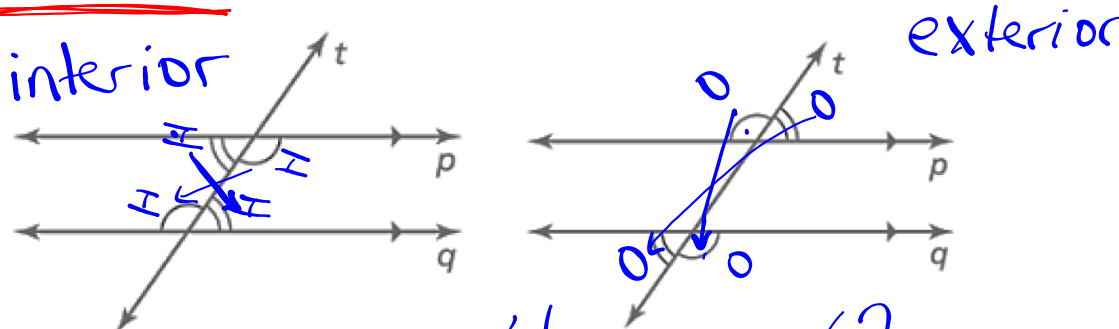
w ∥ z
Parallel

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Corresponding Angles - Pairs of angles located in the **SAME** location on each parallel line

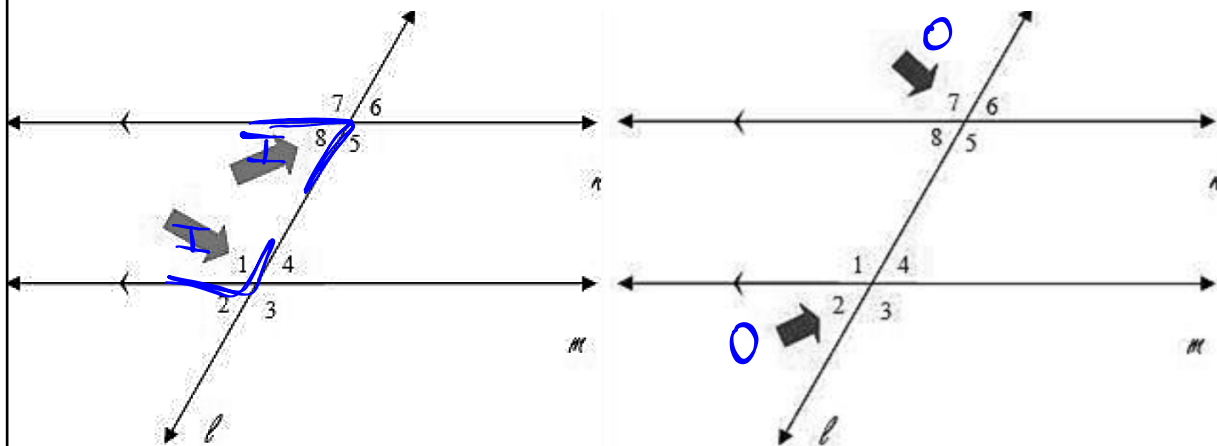**Equation Setup**: $m\angle 1 = m\angle 2$

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Alternate Angles - Pairs of angles located either BOTH on the **INSIDE** (*interior*) or BOTH on the **OUTSIDE** (*exterior*) **and** **JUMP** over the transversal

interior   exterior
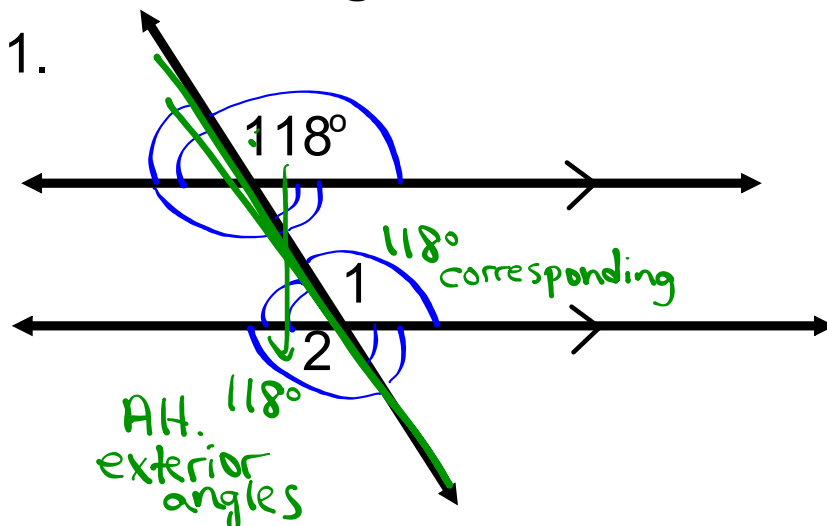
Equation Setup: $m\angle 1 = m\angle 2$

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Same-Side (Consecutive) Angles - Pairs of angles located either BOTH on the **INSIDE** (*interior*) or BOTH on the **OUTSIDE** (*exterior*) *BUT DO NOT* __JUMP__ over the transversal

Equation Setup: $\underline{\;m\angle 1\;}$ + $\underline{\;m\angle 2\;}$ = $\underline{\;180°\;}$

Find the measure of the missing or numbered angle.

1.

118°

118° corresponding

1

2

A.H.
exterior
angles   118°

Find the measure of the missing or numbered angle.

2.

$180° - 53°$
$127°$

2

$53°$

8 $53°$ Alt. ext.

7

$127°$ Alt ext

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3.

k

j

$110°$

1
$70°$
$65°$

$180° - 135°$

$115°$ 2 $45°$ 7

$115°$ Corresponding

$45°$ 8 $45°$ q

$180° - 115°$
$65°$

$45°$ 5

4 3

m

Find the value of all variables.

4.

12x + 3

12x + 3 = 11x + 9
−11x   −11x

x + 3 = 9
−3   −3   11x + 9

x = 6
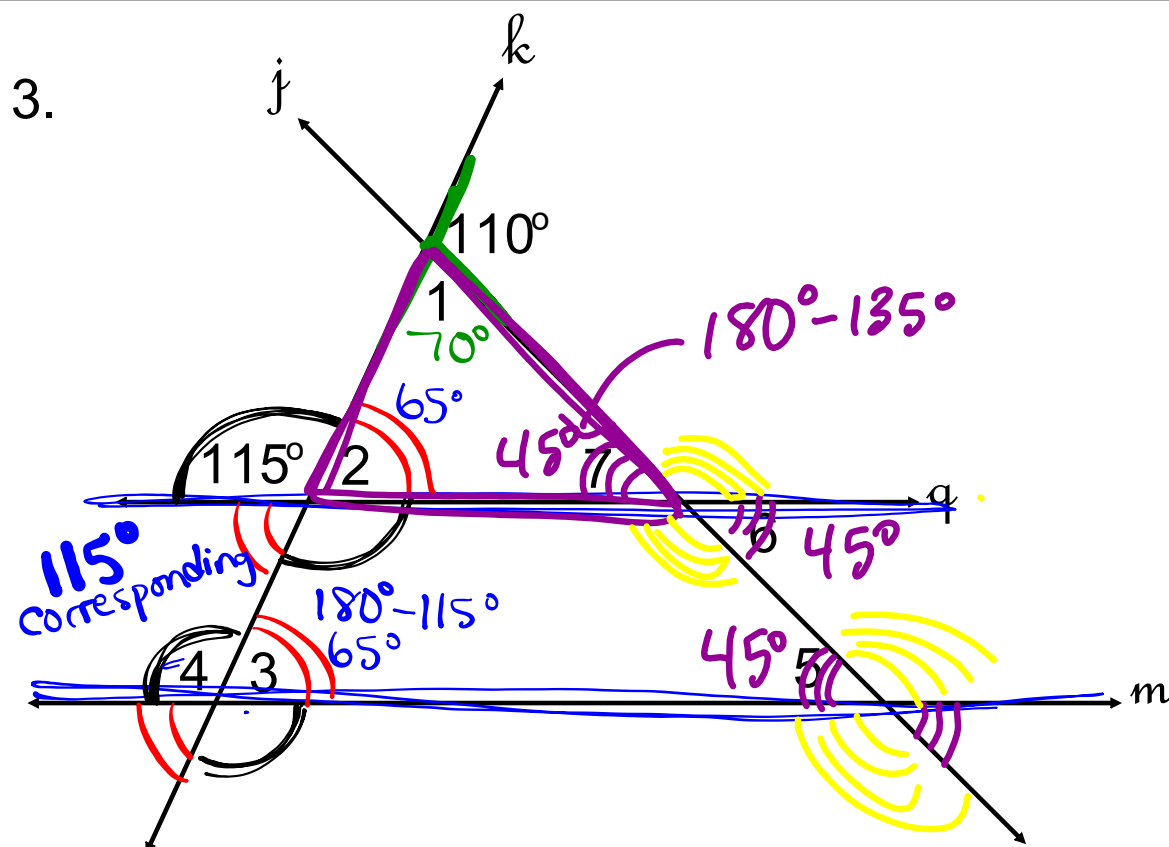
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Find the value of all variables.

5.

n

5x + 10   *ℓ*

3x + 2   *m*

5x + 10 + 3x + 2 = 180

8x + 12 = 180
−12   −12

$\frac{8x}{8} = \frac{168}{8}$

x = 21

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6

Find the value of all variables.

6.

$3y + 5 + 5y + 15 = 180$
$8y + 20 = 180$
$\underline{-20 \quad -20}$
$\dfrac{8y}{8} = \dfrac{160}{8}$

$X = 24$
$y = 20$

$3x - 7 = 2x + 17$
$\underline{-2x \quad -2x}$
$x - 7 = 17$
$\underline{+7 \quad +7}$

$\boxed{X = 24}$

3y + 5

5y + 15

2x + 17

3x - 7

Alt.
ext.

Same-side
(consecutive)
int. angles
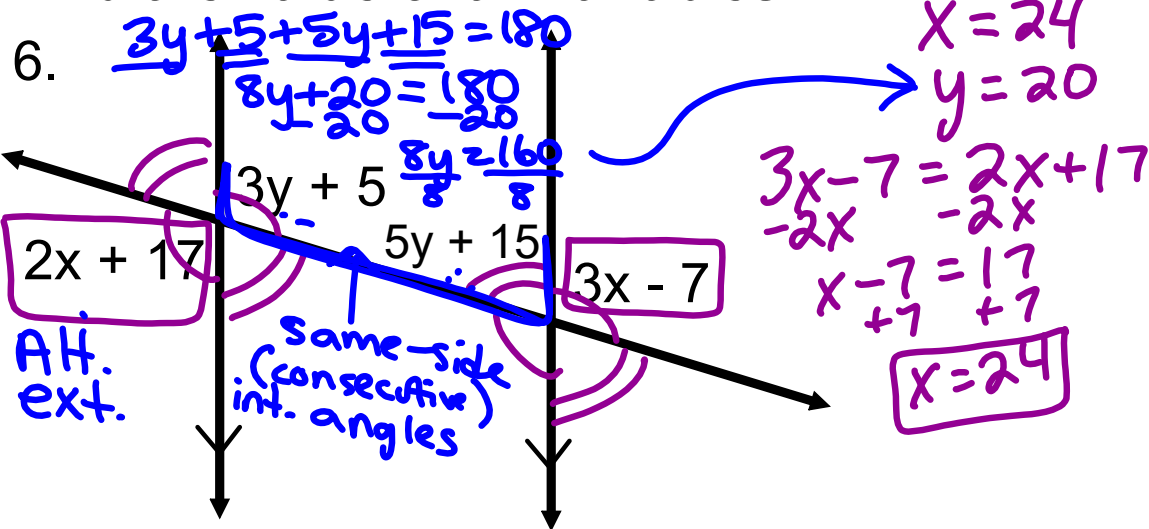
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Find the value of all variables.

7.

$180°$
$-123°$

$a°$ $57°$ $64°$ $b°$ $c°$

$180° - 64°$
$116°$

$59°$

$180° - 121°$

$57°$ $d°$ $64°$
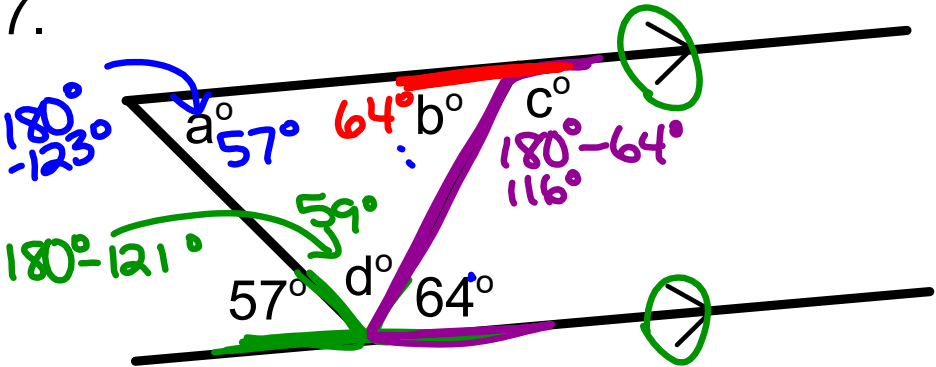
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Classwork:

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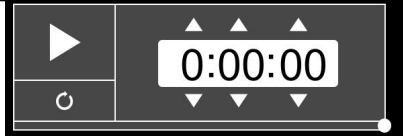
Complete the classwork by using angle relationships in parallel lines.

HW: Finish classwork

Jul 31-9:12 PM