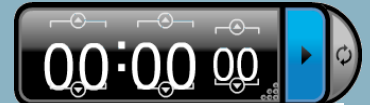# 10/2 Do Now

00:00 00

DO NOW   Name_____   Date_____ Per_____

(1) Sketch parallel lines m and n. Sketch transversal t.
(2) Label a pair of corresponding angles with a "c" in each angle
    Label a pair of alternate interior angles with an "i" in each angle
    Label a pair of alternate exterior angles with an "e" in each angle
    Label a pair of supplementary angles with an "s" in each angle

SLO: Use the measures of angle pairs to prove that lines are parallel.
NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2   Announcements

1.   You need a compass EVERY day in this class incase we do constructions. You MUST have a compass to complete the homework. You MUST have a compass by Wednesday.
2.   Group test Friday

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NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2 Assignment sheet

Class _____ Period _____

DATE	CLASSWORK ASSIGNMENT		HOMEWORK ASSIGNMENT	
10/1	Unit 1 Reflection	due 10/2	Unit 1 Reflection	due 10/2
10/2	Proving Lines Parallel	due 10/2	Proving Lines Parallel	due 10/3
10/3	Constructing Parallel Lines	due 10/3	Constructing Parallel Lines	due 10/4
10/4	Parallel Lines on a Coordinate grid	due 10/4	Parallel Lines on a Coordinate grid	due 10/5
10/5	Group Test Parallel Lines	due 10/5	Parallel Lines Review	due 10/8
		due		due

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10/2 HW Check and Questions

Turn in Unit 1 reflection
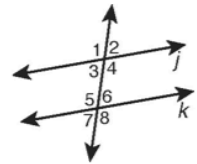
SLO: Use the measures of angle pairs to prove that lines are parallel.
NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2 Proving that lines are Parallel

Geometry: Parallel and Perpendicular Lines
CLASSWORK: Proving Lines are Parallel

Postulate: If a||b and both intersect transversal t, then corresponding angles are congruent.

Converse:_____

Theorem: If a||b and both intersect transversal t, then alternate interior angles are congruent.

Converse:_____

Theorem: If a||b and both intersect transversal t, then alternate exterior angles are congruent.

Converse:_____

Theorem: If a||b and both intersect transversal t, then same side interior angles are supplementary.

Converse:_____

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10/2 Proving that lines are Parallel

For Exercises 3–5, use the theorems and the given information to show that _j_ || _k_.

3. **Given:** $\angle 4 \cong \angle 5$
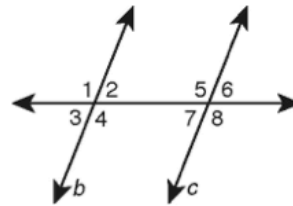

4. **Given:** $m\angle 3 = 12x°$, $m\angle 5 = 18x°$, $x = 6$

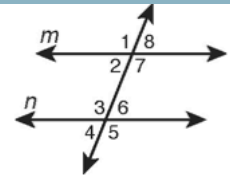5. **Given:** $m\angle 2 = 8x°$, $m\angle 7 = (7x + 9)°$, $x = 9$

SLO: Use the measures of angle pairs to prove that lines are parallel.

NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2 Proving that lines are Parallel

Use the figure for Exercises 2 and 3. Given the information in each exercise, state the reason why lines *b* and *c* are parallel.

6. $\angle 4 \cong \angle 8$ _____

_____

_____

7. $m\angle 3 = 68°$, $m\angle 7 = (5x + 3)°$, $x = 13$
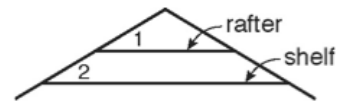
_____

_____

SLO: Use the measures of angle pairs to prove that lines are parallel.

NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2 Proving that lines are Parallel

Use the figure for Exercises 8–15. Tell whether lines *m* and *n* must be parallel from the given information. If they are, state your reasoning. (*Hint:* The angle measures may change for each exercise, and the figure is for reference only.)

8. $\angle 7 \cong \angle 3$

_____

9. $m\angle 3 = (15x + 22)°$, $m\angle 1 = (19x − 10)°$, $x = 8$

_____

10. $\angle 7 \cong \angle 6$

_____

11. $m\angle 2 = (5x + 3)°$, $m\angle 3 = (8x − 5)°$, $x = 14$

_____

12. $m\angle 8 = (6x − 1)°$, $m\angle 4 = (5x + 3)°$, $x = 9$

_____

13. $\angle 5 \cong \angle 7$

_____

14. $\angle 1 \cong \angle 5$

_____

15. $m\angle 6 = (x + 10)°$, $m\angle 2 = (x + 15)°$

_____

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10/2 Proving that lines are Parallel

16. A bedroom has sloping ceilings as shown. Marcel is hanging a shelf below a rafter. If $m\angle 1 = (8x - 1)°$, $m\angle 2 = (6x + 7)°$, and $x = 4$, show that the shelf is parallel to the rafter above it.

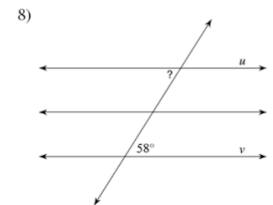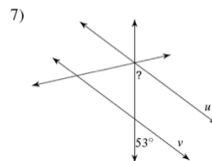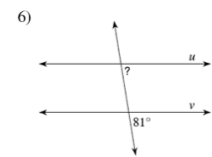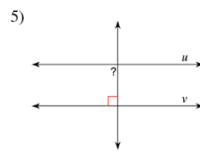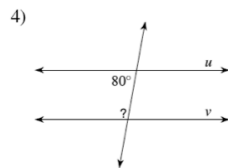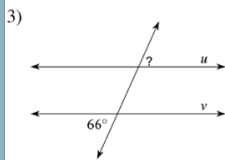**SLO: Use the measures of angle pairs to prove that lines are parallel.**

NYS Standard: **G.G.35** Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2 Proving that lines are Parallel HOMEWORK

(A) NAME THE ANGLE RELATIONSHIP AND

(B) **Find the measure of the indicated angle that makes lines u and v parallel.**
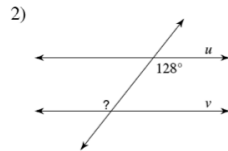
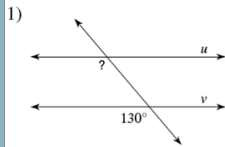1)

2)

3)

4)

5)

6)

7)

8)

SLO: Use the measures of angle pairs to prove that lines are parallel.

NYS Standard: **G.G.35**   Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

10/2   Geometry PRIDE

Names & accomplishments

SLO: Use the measures of angle pairs to prove that lines are parallel.
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10/2   Ticket Out the Door

SLO: Use the measures of angle pairs to prove that lines are parallel.
NYS Standard: **G.G.35**   Determine if two lines cut by a transversal are parallel, based on the measure of given pairs of angles formed by the transversal and the lines

Ticket out the door   Name_____   Date_____ Per_____
☹ 1 2 3 4 5 ☺ because:

Rate how well you met today's SLO (Student Learning Objective). What helped you most? What do you still need to work on?

9/17   Quiz

Face desks forward and clear desk except for

Communication of any sort = ZERO

RAISE YOUR HAND silently if you need something

CCSS Standard:

9/17   Test

Face desks forward and clear desk except for

Communication of any sort = ZERO

RAISE YOUR HAND silently if you need something

CCSS Standard: