YOU WILL NEED...

TEST CORRECTIONS TO TURN IN (IF NEEDED)
CH 3 VOCAB FOR COMPLETION GRADE
JOURNAL
COMPASS
RULER
NOTEBOOK
TEXTBOOK (FOR HW LATER ON)

JOURNAL 9/4

Yesterday, we proved the truth of the statement:

IF TWO ANGLES ARE VERTICAL ANGLES, THEN THEY ARE CONGRUENT.

What about the converse? Is it true that:

IF TWO ANGLES ARE CONGRUENT, THEN THEY ARE VERTICAL ANGLES.

Explain using words and/or diagrams.

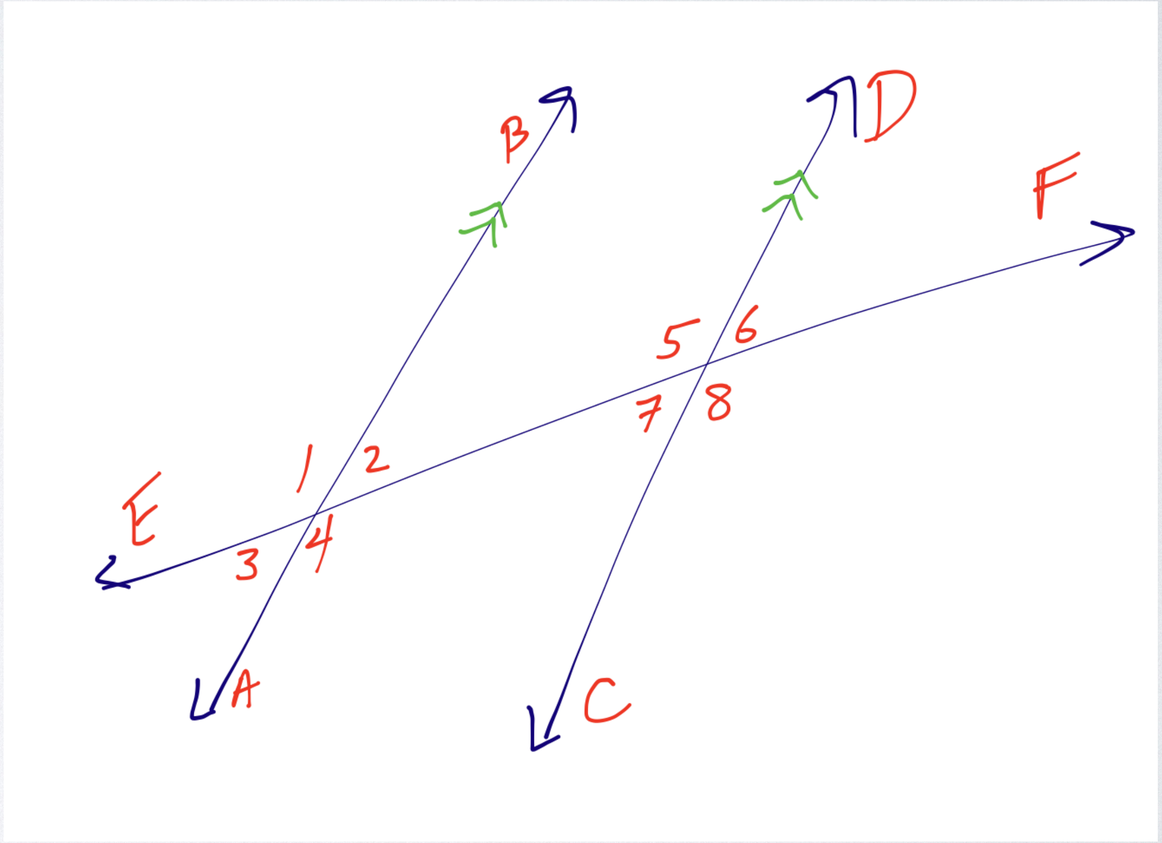
PARALLELS AND TRANSVERSALS

Mariana has to replace a window in her home. The window was a single large pane of glass, but she has found it is cheaper to replace it with six smaller, rectangular pieces of glass separated by plastic molding called muntins.

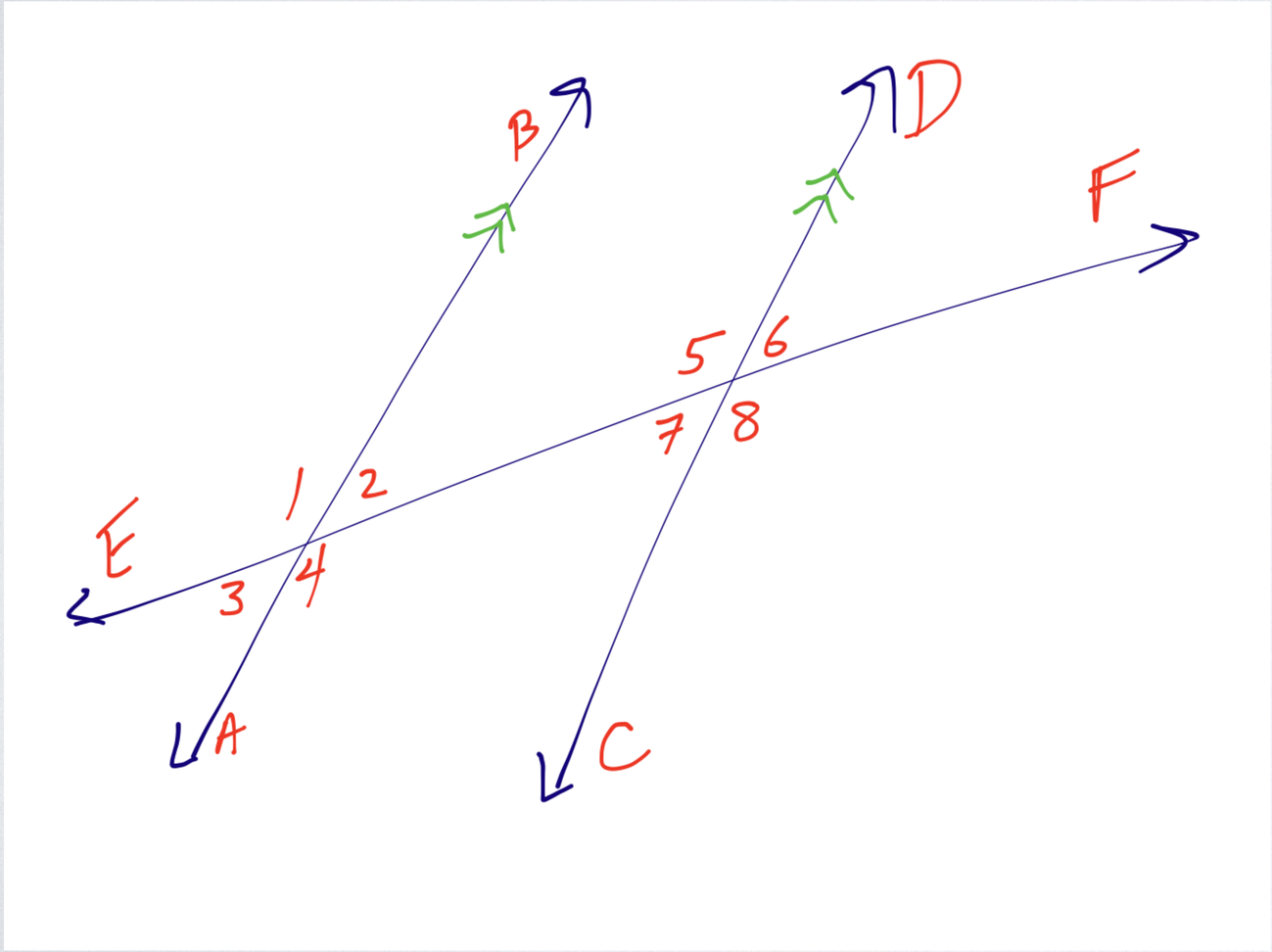
Explain how Mariana could verify that she has installed her muntins properly.

A GEOMETRIC PROOF
ALTERNATE INTERIOR ANGLES

Given: AB // CD with transversal EF.
Prove: <4 = <5



ANOTHER GEOMETRIC PROOF: SAME SIDE INTERIOR ANGLES

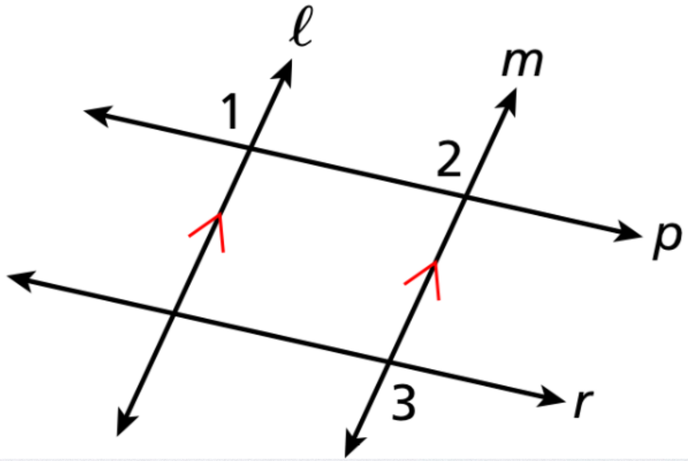


Given: AB // CD with transversal EF.
Prove: <4 + <7 = 180

Proving Lines Parallel

Given: $\ell \parallel m, \angle 1 \cong \angle 3$

Prove: $r \parallel p$



CONSTRUCTING PARALLEL LINES

1. Draw a straight line. Let's call it line l.
2. Draw a point P not on line l.
3. Place a point anywhere on l, and call it Q.
4. Connect P and Q with a line. Call it line t. Make sure your line continues past point P.
5. With your compass, draw an arc (part of a circle) centered at Q, intersecting lines l and t. The compass width does not matter.

- Without changing the compass, place the needle at point P and draw a large arc.
- Now return to your first arc. Place the needle where the arc intersects line t, and the pencil where the arc intersects line l.
- With your compass in that setting, place the needle where the second arc intersects line t. Then draw an arc that intersects your second arc.
- Call the arcs' intersection point S. Connect points S and P with a line called m. The new line m is parallel to the original line l..

HOMEWORK:
P 202: #6-21
VOCAB QUIZ ON MONDAY