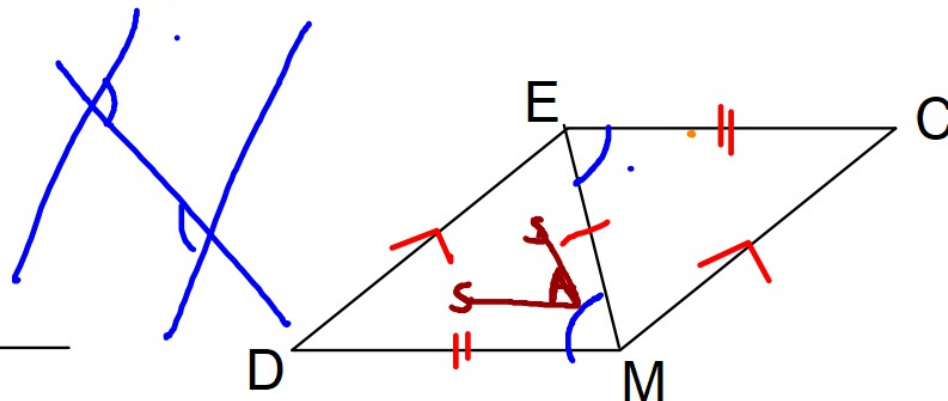


Good morning and welcome back

Warm up: identify the mistakes, then fix the proof

Given:  $\overline{DE} \parallel \overline{CM}$  and  $\overline{DM} \cong \overline{CE}$

Prove:  $\angle D \cong \angle C$



Statements	Reasons
✓ 1. $\overline{DE} \parallel \overline{CM}$ , $\overline{DM} \cong \overline{CE}$	1. Given
2. $\overline{EM} \cong \overline{ME}$	2. <del>Shared Side</del> Reflexive Prop.
3. <del><math>\angle E \cong \angle M</math></del> $\angle MEC \cong \angle MDE$	3. Alternate Int. Angles
4. $\angle D \cong \angle C$	4. <del>ASA</del> and CPCTC

$\triangle DEM \cong \triangle CME$

## Visibly Random Grouping

Assessments are being returned

HW for new skill retake CO-C9P

#1-3 on "Writing Triangle Congruence Proofs" handout

AND

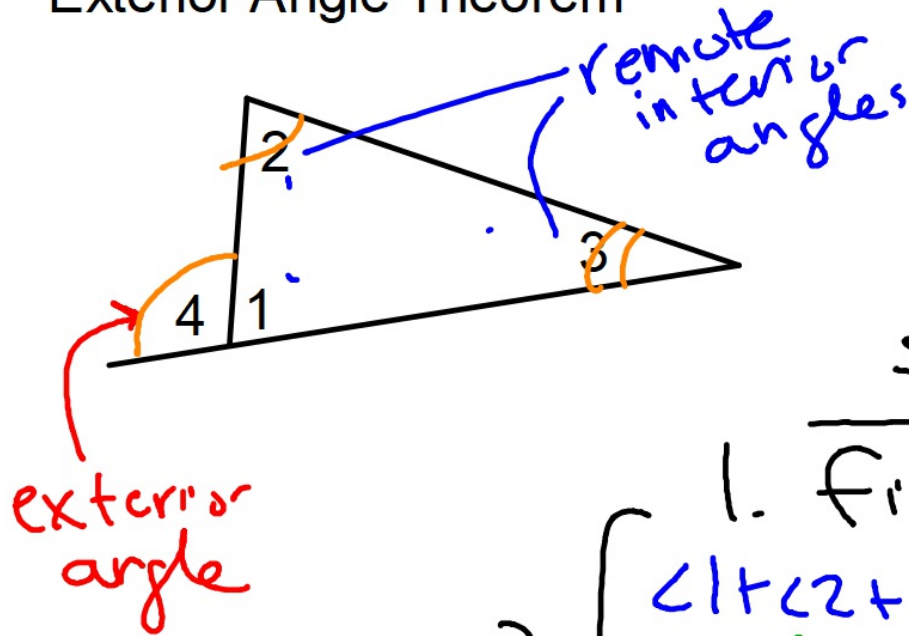
p 159 #8-12

retakes available tutoring tomorrow and any DS except Wednesday

3 weeks left in Q2.

Wrapping up triangles

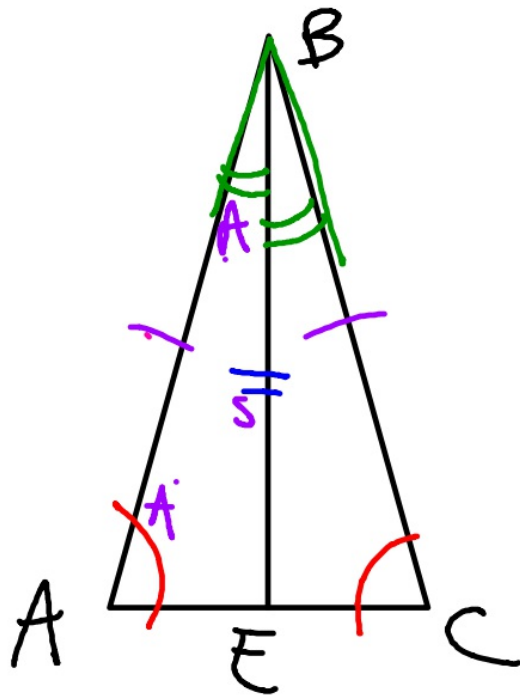
# Exterior Angle Theorem



Given: figure  
 Prove:  $\angle 4 = \angle 2 + \angle 3$

S	R
1. Figure $\angle 1 + \angle 2 + \angle 3 = 180^\circ$ $\angle 4 + \angle 1 = 180^\circ$ $\cancel{\angle 1} + \angle 2 + \angle 3 = \cancel{\angle 4} + \angle 1$ $\underline{\angle 4 = \angle 2 + \angle 3}$	1. Given Triangle Angle Sum make a line Transitive Property Subtraction

## Converse of Isosceles Triangle Theorem



Given:  $\overline{BE}$  bisects  $\angle ABC$ ,  $\angle A \cong \angle C$   
 Prove:  $\triangle ABC$  is isosceles

S	R
1. $\overline{BE} \cong \overline{BE}$	1. Given
2. $\angle ABE \cong \angle CBE$	2. Reflexive
3. $\triangle ABE \cong \triangle CBE$	3. Def. of bisect
4. $\overline{AB} \cong \overline{CB}$	4. AAS
5. $\triangle ABC$ isos.	5. CPCTC
	6. Def. of isos.

HW

watch and take notes on quadrilaterals unit introduction video