UNIT TEST... Chp. 1 - Inductive/Deductive

Tomorrow! Chp. 2 - Angle Properties

REVIEW / PRACTICE TIME...

CHAPTER 1...

- p. 34: Mid Chp Review (FAQ)
- p. 35: Mid Chp Practice Ques.
- p. 59: Chp Review (FAQ)
- p. 61: Chp Practice (omit 1.7)
- p. 58: Practice Test

CHAPTER 2...

- p. 84: Mid Chp Review (FAQ)
- p. 85: Mid Chp Practice Ques.
- p. 105: Chp Review (FAQ)
- p. 106: Chp Practice
- p. 104: Practice Test

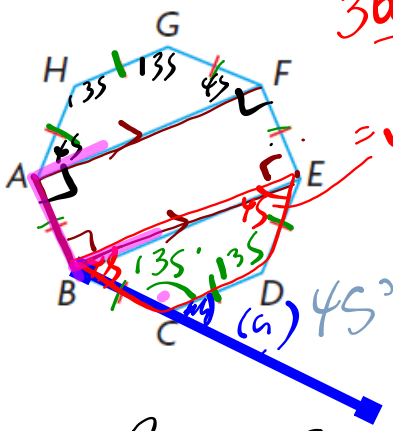
Review Questions...

5. *ABCDEFGH* is a regular octagon.

a) Draw an exterior angle at vertex *C*.

b) Determine the measure of the exterior angle you drew.

c) Prove: $AF \parallel BE$



$\frac{360-135(2)}{2}$

$= 45$

b) Sum $= 180^\circ(n-2)$

$= 180^\circ(8-2)$

$= 1080$

Reg $= \frac{\text{Sum}}{\#\text{ of sides}}$

$= \frac{1080}{8}$

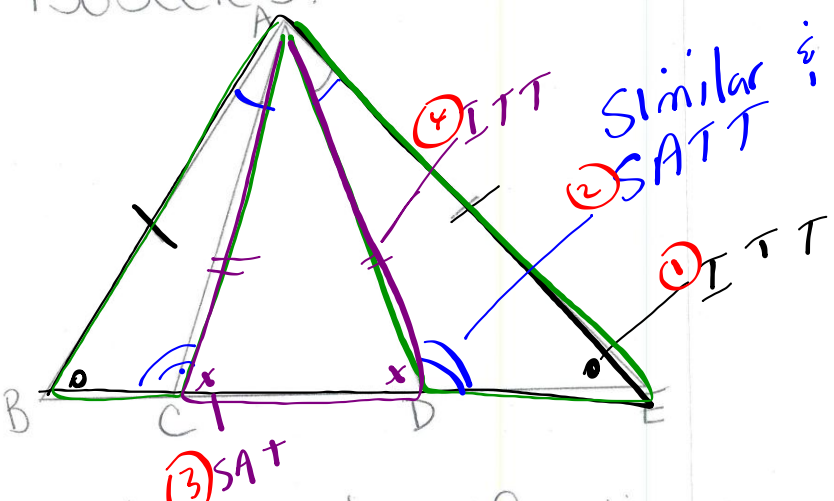
$= 135^\circ$

c)

Extend *BC* to form exterior angles $\angle ABI$ and $\angle DCJ$.	
$\angle ABI = 45^\circ$ $\angle DCJ = 45^\circ$	Exterior angle of regular octagon
$BE \parallel CD$	Alternate exterior angles are equal.
$\angle CBE = 45^\circ$	Alternate interior angles
$\angle ABE = 90^\circ$	Supplementary angles
Similarly, by extending *AH* and following the process above, $\angle FAB = 90^\circ$.	
$\angle ABE + \angle FAB = 180^\circ$	
$AF \parallel BE$	Interior angles on the same side of the transversal are supplementary.

(2)

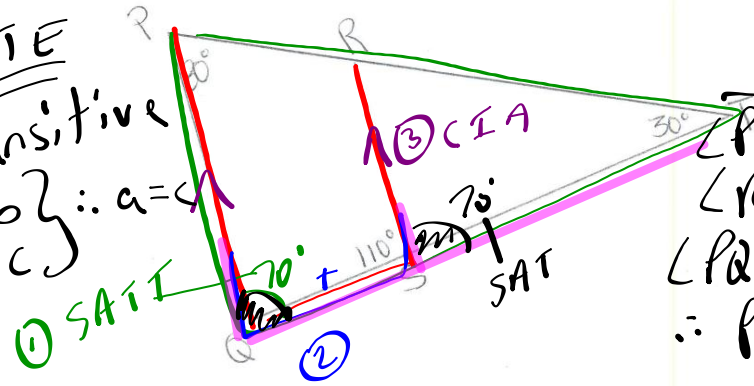
Prove that $\triangle ACD$ is isosceles.



Statements	Justifications
$\angle ABC = \angle AED$	ITT
$\angle ACB = \angle ADE$	SATT & similar triangles
$\angle ACD = \angle ADC$	SAT
$\therefore AC = AD$	ITT

(4)

Prove PQ // RS



NOTE

Transitive

a=b, b=c } ∴ a=c

S	J
∠PQS = 70°	SATT
∠RST = 70°	SAT
∠PQS = ∠RST	Transitive
∴ PQ // RS	CA

Statements	Justifications
∠PQT = 70°	SATT
∠PQS + ∠RSQ = 180°	Addition
∴ PQ // RS	CIA