Questions on lesson 2.5?

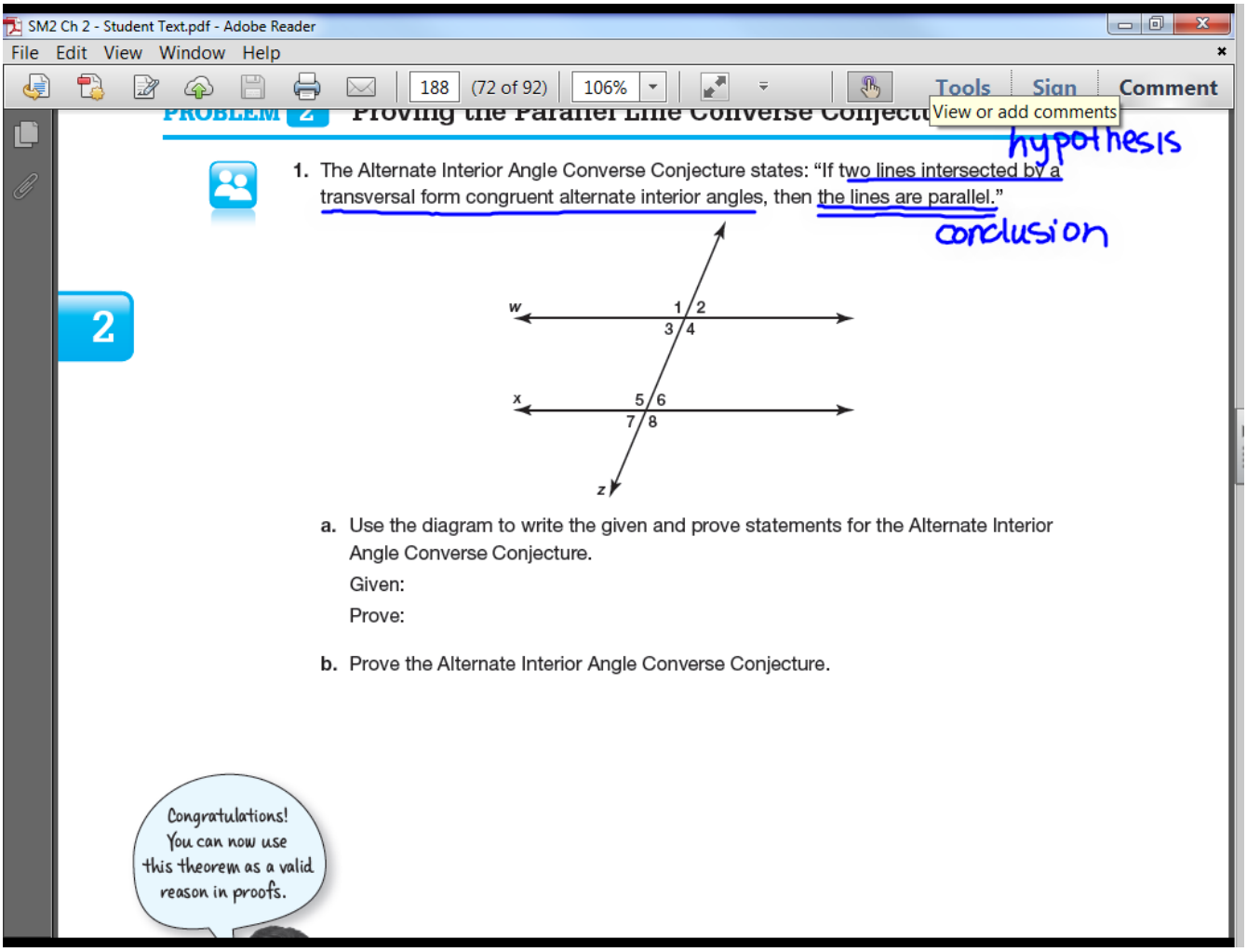
Look over Lesson 2.5's homework, we will be taking our content mastery quiz soon!

Feb 27-8:47 AM

hypothesis conclusion

5. If a triangle has three congruent sides, then the triangle is an equilateral triangle.

Converse:
If a triangle is equilateral, then it has three congruent sides.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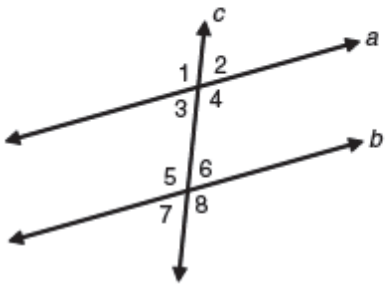
PROBLEM 2 Proving the Parallel Line Converse Conjecture
hypothesis
conclusion
1. The Alternate Interior Angle Converse Conjecture states: "If two lines intersected by a transversal form congruent alternate interior angles, then the lines are parallel."
2
w
x
z
1 2
3 4
5 6
7 8
a. Use the diagram to write the given and prove statements for the Alternate Interior Angle Converse Conjecture.
Given:
Prove:
b. Prove the Alternate Interior Angle Converse Conjecture.
Congratulations! You can now use this theorem as a valid reason in proofs.

Sep 22-9:29 AM

FROM LESSON 2.5 - NOT IN YOUR BOOK

1. Use the figure to write the postulate or theorem that justifies each statement.



a. $m\angle 1 = m\angle 8$, so $a \parallel b$

b. $m\angle 4 + m\angle 6 = 180°$, so $a \parallel b$

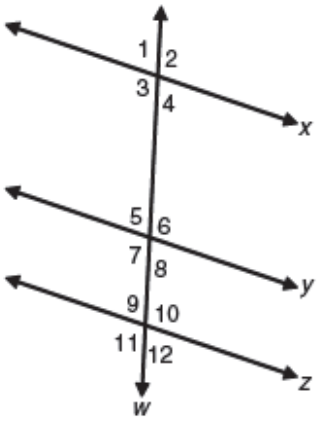
c. $a \parallel b$, so $m\angle 3 = m\angle 7$

d. $m\angle 2 + m\angle 8 = 180°$, so $a \parallel b$

e. $m\angle 4 = m\angle 5$, so $a \parallel b$

f. $a \parallel b$, so $m\angle 3 + m\angle 5 = 180°$

2. Use the given information to determine the pair of lines that are parallel. Write the postulate or theorem that justifies your answer.



a. $m\angle 4 = m\angle 5$

b. $m\angle 2 + m\angle 12 = 180°$

c. $m\angle 7 = m\angle 11$

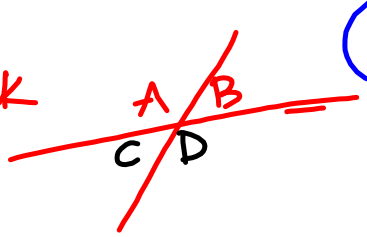
d. $m\angle 8 + m\angle 10 = 180°$

e. $m\angle 1 + m\angle 7 = 180°$

f. $m\angle 2 = m\angle 11$

Geometry Review

(6) on back



(4)

Statements	Reasons
1) $\angle A$ & $\angle B$ are Supplementary, $\angle C$ & $\angle D$ are Supplementary, $\angle A \cong \angle D$	1) Given
2) $m\angle A = m\angle D$	2) Definition of $\cong \angle$s
3) $m\angle A + m\angle B = 180°$ and $m\angle C + m\angle D = 180°$	3) Definition of supplementary $\angle$s
4) $m\angle A + m\angle B = m\angle C + m\angle D$	4) Substitution Prop.
5) $m\angle B = m\angle C$	5) Subtraction Property of =.
6) $\angle B \cong \angle C$	6) Def'n of $\cong$

hypothesis conclusion

P	q	P → q
T	T	T
T	F	F
F	T	T
F	F	T