AMA LEARNING

Congruency & Similarity with Proofs:

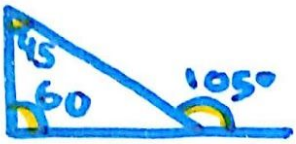
Practice Activity

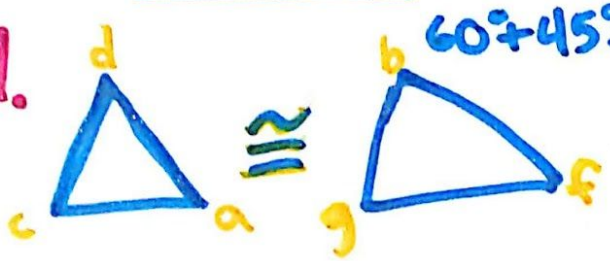
1. what introductory theorem does this image represent?

Answer here ↓

a.  (same shape + size)

b.  f + d + c = 180

c.  60° + 45° = 105°

d.  △cda ≅ △gbf

2. The reflexive property seems very obvious and not needed. Is it okay to forget about it when writing proofs?

Congruence & Similarity with Proofs.

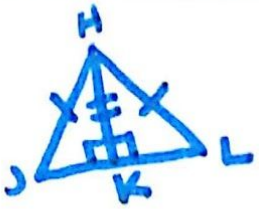
Practice Cont.

3. If the legs are congruent, then the base angles are congruent is the

_____ _____ _____ _____ _____

_____.

4. Complete the proof:



Given: $HK \perp JL$, $\overline{HJ} \cong \overline{HL}$

Prove: $\triangle HKJ \cong \triangle HKL$

Statements	Reasons

Congruence & Similarity with Proofs:
Practice Cont.

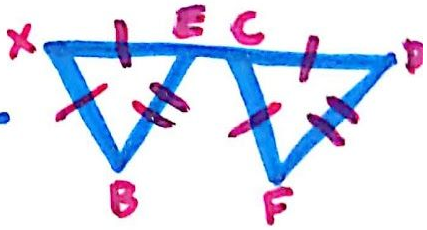
5. fill in the blank: _____ matters in congruence statements.

6. What are the two "anti-theorems"?

7. Complete the proof:

Given: $DF \parallel EB, CF \parallel XB, DC \cong EX$

Prove: $\triangle DCF \cong \triangle EXB$



Statements	reasons

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Area and Volume of Solids: Answers

1. 6
2. Bases
3. $A \approx 452.39$
4. L.A. $\approx$ 125.66

Congruency & similarity: Answers

1. a. congruent figures
   b. Triangle sum Theorem
   c. Exterior angles Theorem
2. NO!
   d. congruence statements
3. Converse of the Base Angles theorem
4. 5. order
6. AAA SSA

4. S	R
1. $HK \perp JL$	1. Given
2. $\angle HKJ$ and $\angle HKL$ are right angles	2. Def. of perpendicular
3. $\overline{HJ} \cong \overline{HL}$	3. Given
4. $\overline{HK} \cong \overline{HK}$	4. reflexive prop.
5. $\triangle HKJ \cong \triangle HKL$	5. HL

7. S	R
1. $DF \parallel EB$	1. Given
2. $\angle FDC \cong \angle BEX$	2. Corresponding Angles
3. $CF \parallel XB$	3. Given
4. $\angle FCD \cong BXE$	4. Corresponding Angles
5. $\overline{DC} \cong \overline{EX}$	5. Given
6. $\triangle DCF \cong \triangle EXB$	6. ASA