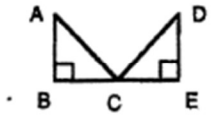
Name _____ Date _____ Section _____

3–13 Identifying What Is Needed to Prove Triangles Are Congruent

We have three methods by which to prove that triangles are congruent: SSS, ASA, SAS

Study the diagrams and the information that is provided. Some information is missing. Determine what information is needed to prove that the triangles are congruent using the given theorem or postulate. There may be more than one correct answer for each. Remember to supply all the missing information that is needed.

1. C is the midpoint of $\overline{BE}$.
   Prove $\Delta ABC \cong \Delta DEC$ by SAS



Missing Information

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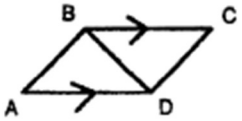
2. Prove $\Delta ABD \cong \Delta CDB$ by SAS.



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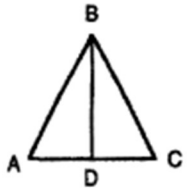
3. ΔABC is isosceles. $\angle A$ and $\angle C$ are base angles. Prove $\Delta ABD \cong \Delta CBD$ by SSS



Missing Information

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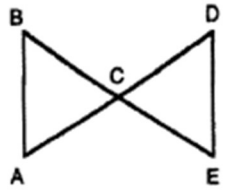
4. C is the midpoint of $\overline{AD}$.
   Prove that $\Delta ABC \cong \Delta DEC$ by ASA.



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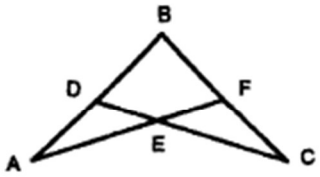
3–13 *(Cont'd)*

5. $\angle A \cong \angle C$. Prove $\Delta ADE \cong \Delta CFE$ by ASA



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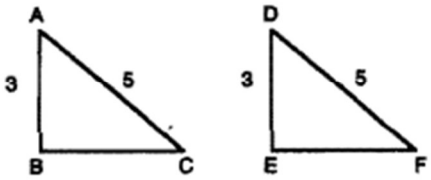
6. Prove $\Delta ABC \cong \Delta DEF$ by SAS



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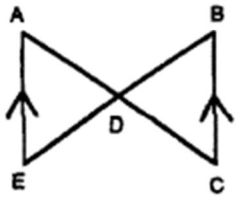
7. Prove $\Delta ADE \cong \Delta CDB$ by ASA.



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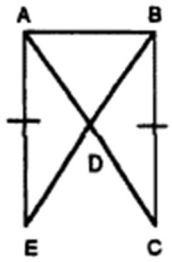
8. Prove $\Delta EAB \cong \Delta CBA$ by SSS.



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