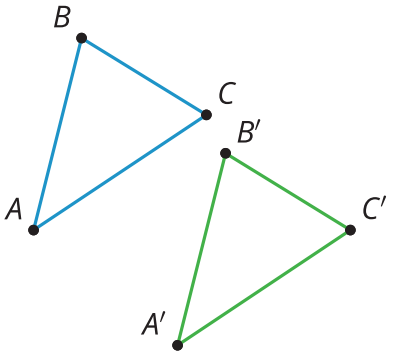
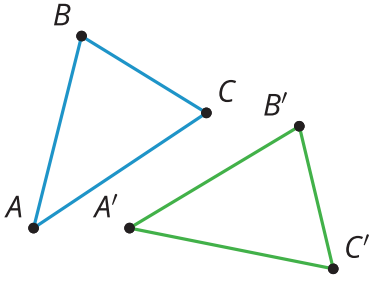
Lesson 10 Practice Problems

1. Here are 4 triangles that have each been transformed by a different transformation. Which transformation is *not* a rigid transformation?

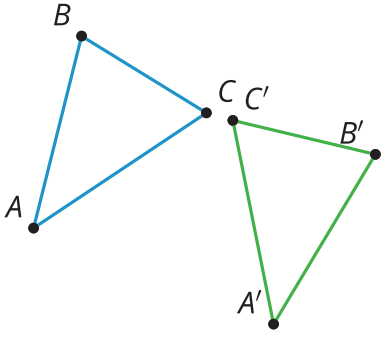
A.



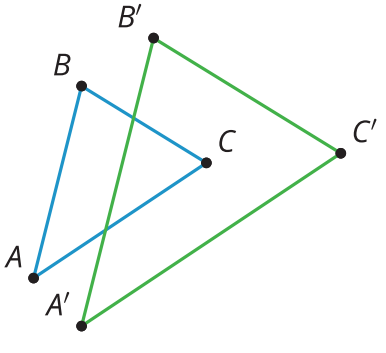
B.



C.



D.



2. What is the definition of congruence?

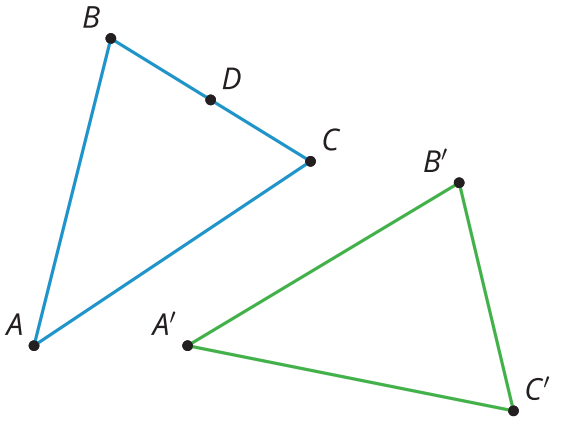
   A. If two figures have the same shape, then they are congruent.

   B. If two figures have the same area, then they are congruent.

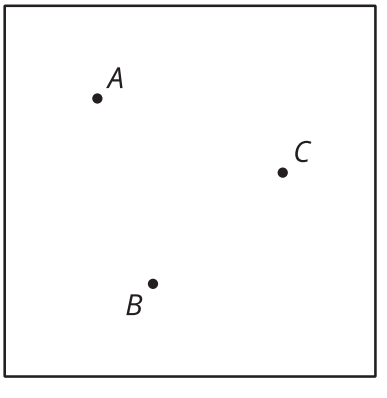
   C. If there is a sequence of transformations taking one figure to another, then they are congruent.

   D. If there is a sequence of rotations, reflections, and translations that take one figure to the other, then they are congruent.

3. There is a sequence of rigid transformations that takes A to A', B to B', and C to C'. The same sequence takes D to D'. Draw and label D':

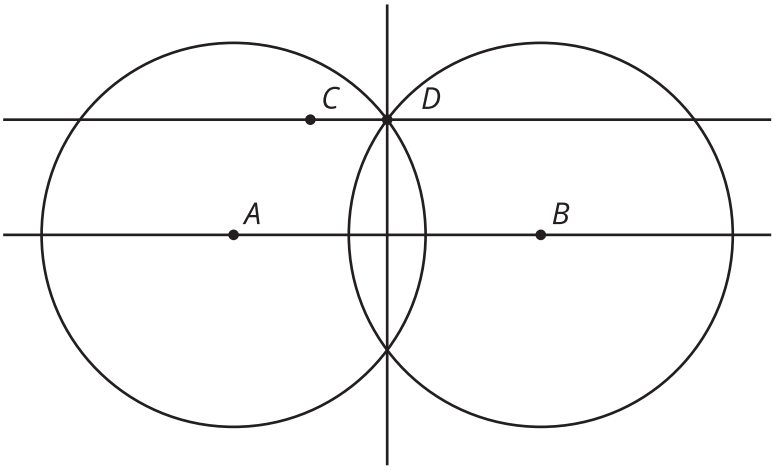


4. Three schools are located at points A, B, and C. The school district wants to locate its new stadium at a location that will be roughly the same distance from all 3 schools. Where should they build the stadium? Explain or show your reasoning.



(From Unit 1, Lesson 9.)

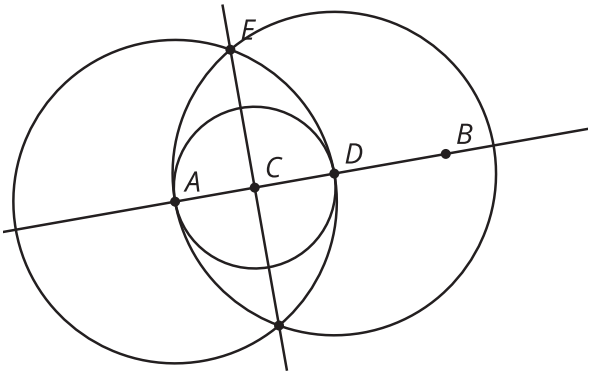
5. To construct a line passing through point C that is parallel to the line AB, Han constructed the perpendicular bisector of AB and then drew line CD.



Is CD guaranteed to be parallel to AB? Explain how you know.

(From Unit 1, Lesson 6.)

6. This diagram is a straightedge and compass construction of a line perpendicular to line AB passing through point C. Select **all** the statements that must be true.



A. $AD = BD$

B. $EC = AD$

C. $AC = DC$

D. $EA = ED$

E. $ED = DB$

F. $CB = AD$

(From Unit 1, Lesson 5.)