Geometry (G.CO.9) Name: _____

Unit One B – Proof Assessment #3 Review (HW30) Date: _____ Period: _____

1. Write the converse of each statement and then circle True or False.
   a. If two angles of a triangle are congruent, then the sides opposite those angles are congruent.

   _____

   TRUE FALSE

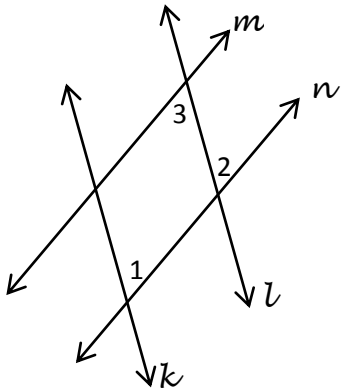
   b. If two angles are right angles, then they are congruent.

   _____

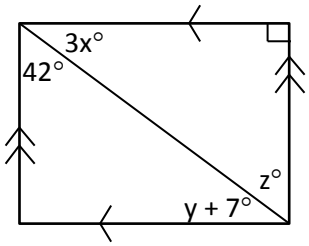
   TRUE FALSE

2. Given: line k ∥ line l; $m\angle 1 = 16x + 11$, $m\angle 2 = 24x - 21$, $m\angle 3 = 102 - 8x$.

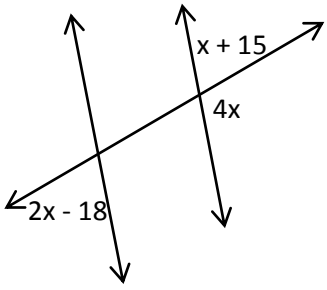
   Using this information, is line m ∥ line n?



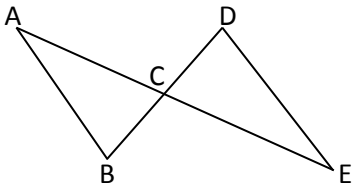
3. Solve for x, y, and z.



5. Are the lines parallel? Show mathematical evidence to support your response.

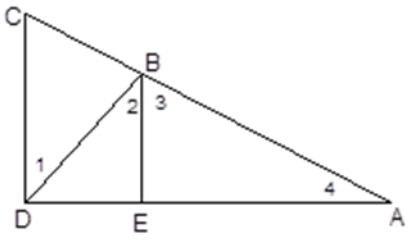


6. **Given:** C is the midpoint of $\overline{AE}$; $\overline{AE}$ bisects $\overline{DB}$
Prove: $\overline{AB} \parallel \overline{DE}$



Statements	Reasons

7. **Given:** $\overline{CD} \parallel \overline{BE}$; $\angle 1 \cong \angle 3$
Prove: $\overline{BE}$ bisects $\angle ABD$



Statements	Reasons

5. Are the lines parallel? Show mathematical evidence to support your response.