

# Triangle Study Guide

# Honors Geometry

Name \_\_\_\_\_

1. A'(2,12), B'(-7,6), C'(-2,-2); translation left 1 unit and up 2 units
2. X''(-6,-4), Y''(4,-4), Z''(0,2); 180 degree rotation then reflection across y-axis
3. Yes, translation right 3 units, 4 down
4. No, dilation with Scale factor 2.5 (changes size)
5. 19
6. B
7. J
8. C
9. C is midpoint of  $\overline{AD}$  and  $\overline{BE}$  (Given);  $\overline{BC} \cong \overline{EC}$  and  $\overline{AC} \cong \overline{DC}$  (Def. of midpoint);  $\angle ACB \cong \angle DCE$  (Vert. angles are congruent);  $\Delta ABC \cong \Delta DEC$  (SAS Postulate)
10. 1.8
11. 17
12. HL
13. ASA
14. None
15. AAS
16. No, need hypotenuse to be congruent; Yes; Yes, with third angles theorem
17.  $\angle L \cong \angle J$ ;  $\overline{HJ} \parallel \overline{LM}$  (Given);  $\angle JKM \cong \angle KML$  (Alt interior angles theorem);  $\overline{KM} \cong \overline{KM}$  (Reflexive Property of  $\cong$ );  $\Delta LKM \cong \Delta JMK$  (AAS Thm);  $\angle LKM \cong \angle JMK$  (CPCTC)
18. She should jump along  $\overline{BA}$