name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Triangle Parallel Proportionality: Find the length of the segment listed.

 1.  2. 

  

3 . BH 4. MV

**Angle Bisector Proportionality: Find the lengths of both segments listed.**

 5.  and  6.  and 

  

 7.  and  8.  and 

  



*Refer to the figure for Exercises 1–3. A city is planning an
outdoor concert for an Independence Day celebration. To
hold speakers and lights, a crew of technicians sets up a
scaffold with two platforms by the stage. The first platform
is 8 feet 2 inches off the ground. The second platform is
7 feet 6 inches above the first platform. The shadow of the
first platform stretches 6 feet 3 inches across the ground.*

 1. Explain why ABC is similar to ADE.
(Hint: The sun’s rays are parallel.)

 2. Find the length of the shadow of the second platform in feet
and inches to the nearest inch.

 3. A 5-foot-8-inch-tall technician is standing on top of the second
platform. Find the length of the shadow the scaffold and the
technician cast in feet and inches to the nearest inch.

*Refer to the figure for Exercises 4–6. Ramona wants to
renovate the kitchen in her house. The figure shows a
blueprint of the new kitchen drawn to a scale of 1 cm : 2 ft.
Use a centimeter ruler and the figure to find each actual
measure in feet.*

 4. width of the kitchen 5. length of the kitchen

 6. width of the sink 7. area of the pantry

*Given that* DEFG *~* WXYZ*, find each of the following using ratios.*



 8. perimeter of WXYZ

 9. area of WXYZ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_