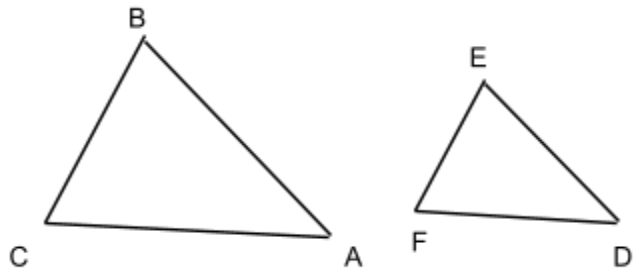
Name: _____

Period: _____

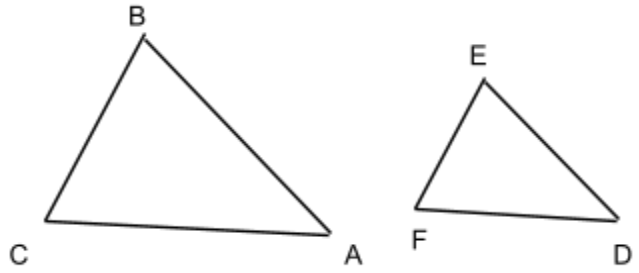
# Solving Similar Triangles with Quadratics

For each question, use the fact that △ABC is similar to △DEF and the given information to solve each for the given sides. Drawings are not to scale.

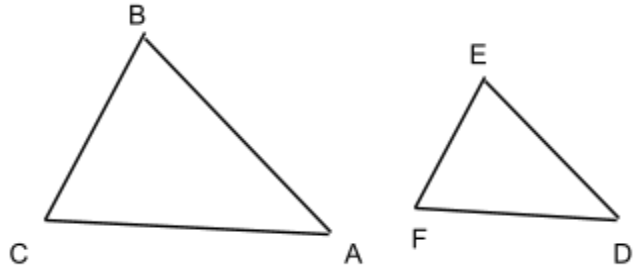
1. AB = 2, AC = x, DE = x, and DF = 8. Solve for x.



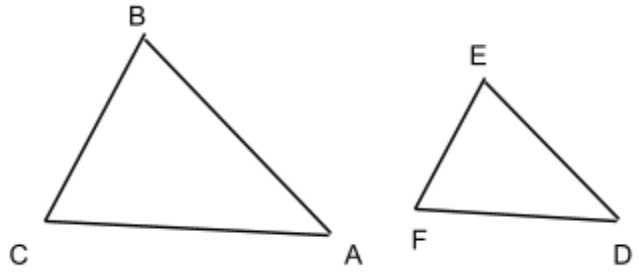

2. AB = 1, AC = y – 2, DE = y, and DF = 8. Solve for y.



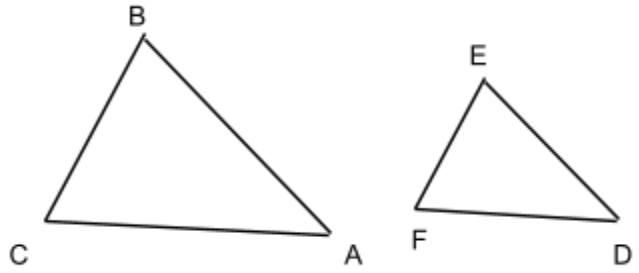

3. AB = z – 4, AC = 10, DE = 24, and DF = z + 4. Solve for z.



4. BC = x, BA = x – 4, EF = x, and ED = 24. Solve for x.




5. AB = 5, AC = y – 2, DE = y + 2, and DF = 12. Solve for y.




6. ∠C = 90°, ∠F = 90°, BC = 3, BA = 5, FE = 4.5. Find the length of ED and FD.