

7-6.

Answers vary. One triangle may be obtained from the other by reflection of $\triangle UVW$ over line \overline{UV} , followed by a translation of V' to Z , and then a rotation about V'' so that the sides coincide. A possible congruence statement is $\triangle UVW \cong \triangle XZY$.

7-7.

Yes, the triangles are congruent. By the Pythagorean Theorem, the three side lengths are equivalent, and by the Triangle Angle Sum Theorem, the three angle measures are equivalent. The left triangle may be mapped onto the right triangle with a translation and a rotation.

7-8.

a. $\frac{5}{2}$ or 2.5

b. $x = 17.5$ mm, because $7 \cdot \frac{5}{2} = 17.5$

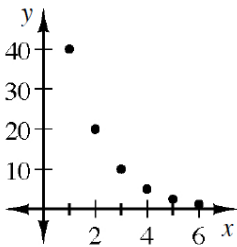
7-9.

$$y = \frac{9}{4}x + 9$$

7-10.

a. It can be geometric, because if each term is multiplied by $\frac{1}{2}$, the next term is generated.

b. See graph below.



c. No, because the half of a positive number is still positive.

7-11.

a. (4, 12)

b. infinitely many solutions