Problems and Solutions

1. Determine if the following triangle is right triangle.

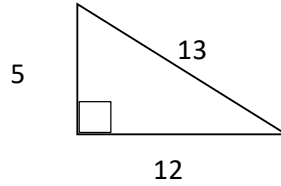 $a^2 + b^2 = c^2$

   $5^2 + 12^2 = 13^2$

   $25 + 144 = 169$

   $169 = 169$

   This is a right triangle.

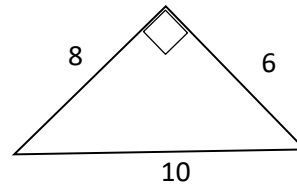2. Determine if the following triangle is a right triangle.

   $a^2 + b^2 = c^2$

   $8^2 + 6^2 = 10^2$

   $64 + 36 = 100$

   $100 = 100$

   This is a right triangle.

3. Find the missing side length and round to the nearest tenth.

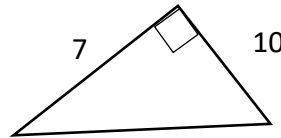 $a^2 + b^2 = c^2$

   $10^2 + 7^2 = c^2$

   $100 + 49 = c^2$

   $149 = c^2$

   $\sqrt{149} = \sqrt{c^2}$

   $12.2 = c$

4. Find the missing side length and round to the nearest tenth.
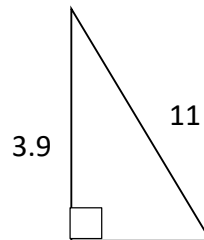
   $a^2 + b^2 = c^2$

   $3.9^2 + b^2 = 11^2$

   $15.21 + b^2 = 121$

   $\underline{-15.21 \qquad\quad -15.21}$

   $b^2 = 105.79$

   $\sqrt{b^2} = \sqrt{105.79}$

   $b = 10.3$

5. Find the missing side length and round to the nearest tenth.

   $a^2 + b^2 = c^2$

   $3^2 + 7^2 = c^2$

   $9 + 49 = c^2$

   $58 = c^2$