Activity 3.5.1: Solving Corresponding Parts of Congruent Triangles

Total points = 36

1. $\overline{HT} \cong \overline{AT}$ ✓
   $HT = AT$ ✓
   $5x = 3x + 4$ ✓
   $5x - 3x = 3x - 3x + 4$ ✓
   $2x = 4$ ✓
   $\frac{2x}{2} = \frac{4}{2}$ ✓
   $x = 2$ ✓

2. $\overline{HU} \cong \overline{HT}$ ✓
   $HU = HT$ ✓
   $2x - 3 = x + 5$ ✓
   $2x - x - 3 + 3 = x - x + 5 + 3$ ✓
   $x = 8$ ✓

3. $\overline{CU} \cong \overline{TU}$ ✓
   $CU = TU$ ✓
   $7x - 4 = x + 2$ ✓
   $7x - x - 4 + 4 = x - x + 2 + 4$ ✓
   $\frac{6x}{6} = \frac{6}{6}$ ✓
   $x = 1$ ✓

4. $\overline{OH} \cong \overline{GD}$ ✓
   $OH = GD$ ✓
   $7x = 4x + 15$ ✓
   $7x - 4x = 4x - 4x + 15$ ✓
   $\frac{3x}{3} = \frac{15}{3}$ ✓
   $x = 5$ ✓
   $OH = 7x$ ✓
   $OH = 7(5)$ ✓
   $OH = 35$ ✓

5. $\overline{SQ} \cong \overline{SE}$ ✓
   $SQ = SE$ ✓
   $3x + 10 = 5x$ ✓
   $3x - 5x + 10 - 10 = 5x - 5x - 10$ ✓
   $\frac{-2x}{-2} = \frac{-10}{-2}$ ✓
   $x = 5$ ✓
   $SQ = 3x + 10$ ✓
   $SQ = 3(5) + 10$ ✓
   $SQ = 25$ ✓

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