Lesson 3.5.1: Solving Corresponding Parts of Congruent Triangles
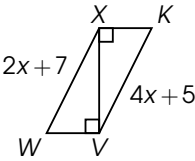
To solve the corresponding parts of congruent triangles, remember:

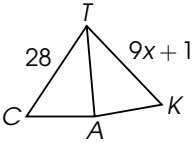**The Corresponding Parts of Congruent Triangles are Congruent (CPCTC).**

Practice Exercises 3.5.1
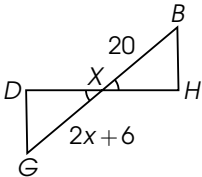
Solve the following problems completely.

1. Given: $\triangle XVW \cong \triangle VXK, m\angle W = 70°$
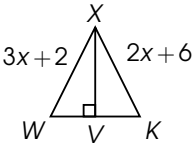   Find: XW and $m\angle K$

2. Given: $\triangle TAC \cong \triangle TAK$
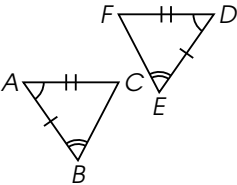   Find: x

3. Given: $\triangle BXH \cong \triangle GXD$,
   $m\angle HXB = y + 30, m\angle DXG = 3y + 10$
   Find: x and y

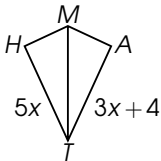4. Given: $\triangle XWK$ is an equilateral triangle,
   V is the midpoint of $\overline{WK}$
   Find: WV

5. Given: $\triangle ABC \cong \triangle DEF$,
   $m\angle A = 50°, m\angle F = 60°$
   $m\angle E = 3x - 5$
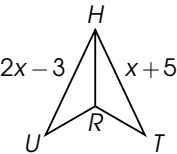   Find: $m\angle C, m\angle B, x$

Activity 3.5.1

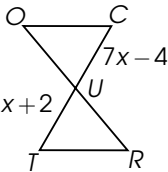Solve the following problems completely.

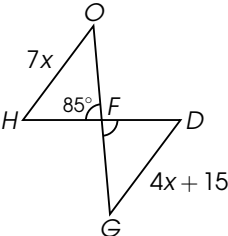1. Given: $\triangle MHT \cong \triangle MAT$
   Find: x

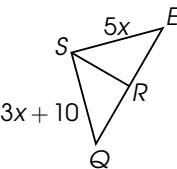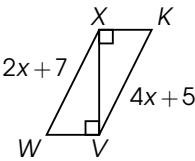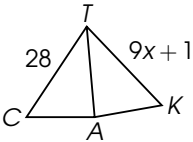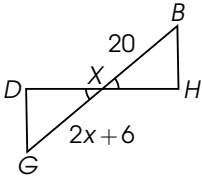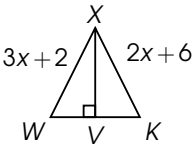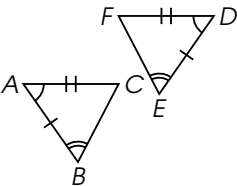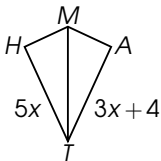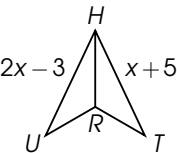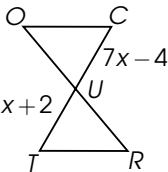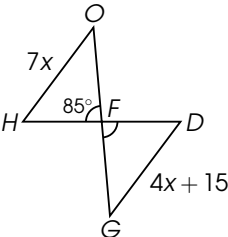2. Given: $\triangle HRU \cong \triangle HRT$
   Find: x

3. Given: $\triangle OCU \cong \triangle RTU$
   Find: x

4. Given: $\triangle OFH \cong \triangle GFD$
   Find: OH and $m\angle DFG$

5. Given: $\triangle ESR \cong \triangle QSR$
   Find: SQ