## Lesson 3.5.1: Solving Corresponding Parts of Congruent **Triangles**

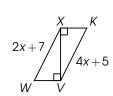
To solve the corresponding parts of congruent triangles, remember:

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

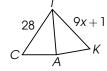
### Practice Exercises 3.5.1

Solve the following problems completely.

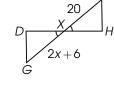
1. Given:  $\triangle XVW \cong \triangle VXK, m \angle W = 70^{\circ}$ Find: XW and  $m \angle K$ 



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: △XWK is an equilateral triangle, V is the midpoint of  $\overline{WK}$ 

Lesson 3.5.1: Solving Corresponding Parts of Congruent

**Triangles** 

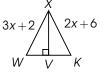
The Corresponding Parts of Congruent Triangles are

Congruent (CPCTC).

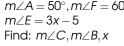
To solve the corresponding parts of congruent triangles,

Find: WV

remember:



5. Given:  $\triangle ABC \cong \triangle DEF$  $m\angle A = 50^{\circ}, m\angle F = 60^{\circ}$  $m\angle E = 3x - 5$ 



# Activity 3.5.1

Find: x

Find: x

Solve the following problems completely.

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

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

4. Given:  $\triangle OFH \cong \triangle GFD$ 

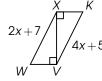
Find: *OH* and *m∠DFG* 



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

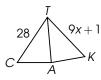
1. Given:  $\triangle XVW \cong \triangle VXK, m \angle W = 70^{\circ}$ Find: XW and  $m \angle K$ 

Solve the following problems completely.



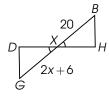
2. Given:  $\triangle TAC \cong \triangle TAK$ Find: x

**Practice Exercises 3.5.1** 



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

Find: x and y



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

Find: WV

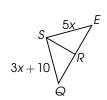


5. Given:  $\triangle ABC \cong \triangle DEF$ ,

 $m\angle A = 50^{\circ}, m\angle F = 60^{\circ}$  $m\angle E = 3x - 5$ Find:  $m \angle C, m \angle B, x$ 



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



85%

4x + 15

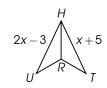
1. Given:  $\triangle MHT \cong \triangle MAT$ Find: x

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

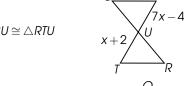
Find: x

Solve the following problems completely.

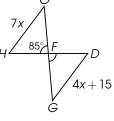
Activity 3.5.1



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



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



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

