

A nighttime photograph of a city skyline reflected in water. A prominent white arch bridge spans across the water in the foreground. The background is filled with illuminated skyscrapers and buildings, their lights reflecting on the water's surface. The overall scene is a vibrant urban nightscape.

Introduction to Triangle Congruence

Introduction to Triangle Congruence

- Describe, distinguish, compare, and identify the 6 possible triangle "configurations."
- Language Objectives
 - Write proofs to solve for triangles using another congruent triangle

Example 1

$$\angle P \cong \underline{\hspace{1cm} ? \hspace{1cm}}$$

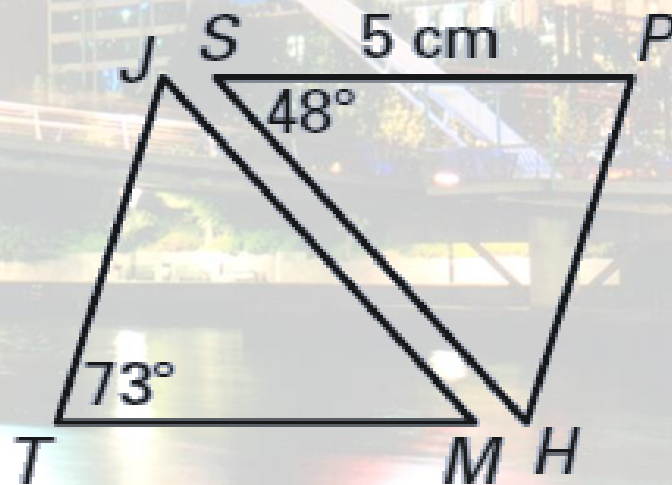
$$m\angle M = \underline{\hspace{1cm} ? \hspace{1cm}}$$

$$MT = \underline{\hspace{1cm} ? \hspace{1cm}}$$

$$\overline{JM} \cong \underline{\hspace{1cm} ? \hspace{1cm}}$$

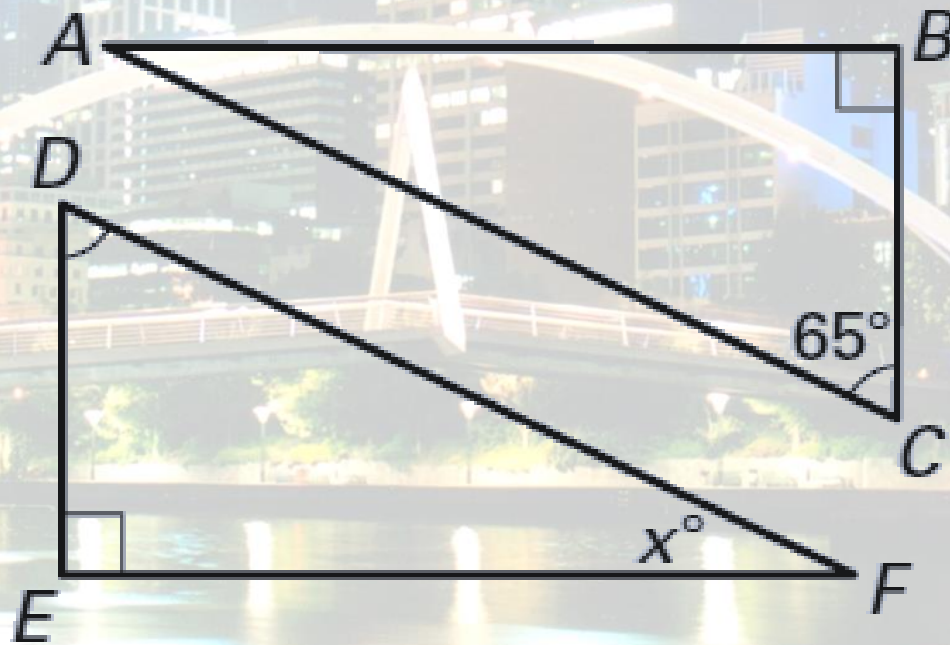
$$m\angle P = \underline{\hspace{1cm} ? \hspace{1cm}}$$

$$\triangle HPS \cong \underline{\hspace{1cm} ? \hspace{1cm}}$$



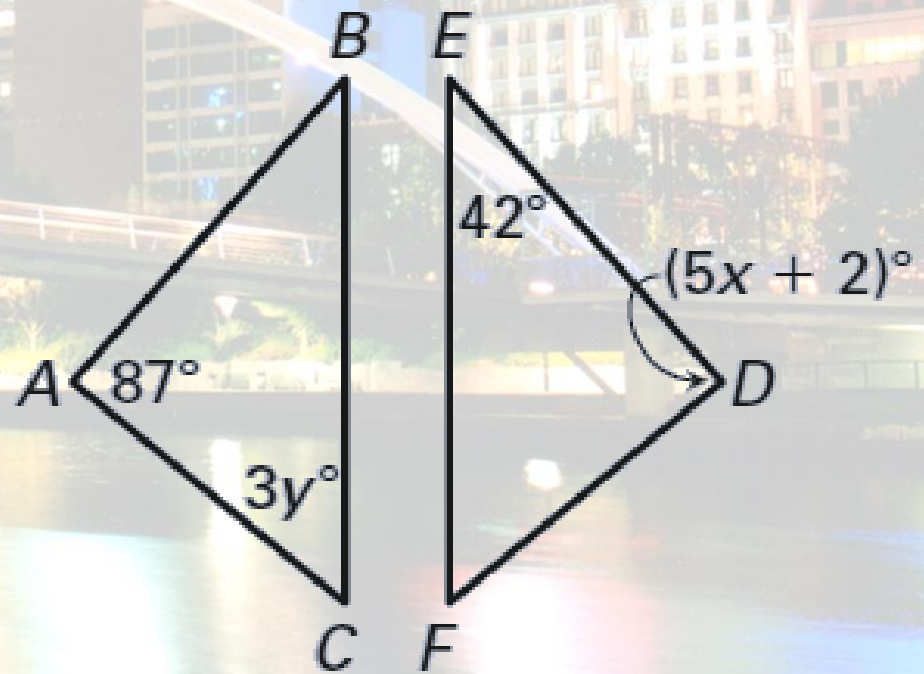
Example 2

- Solve for x



Example 3

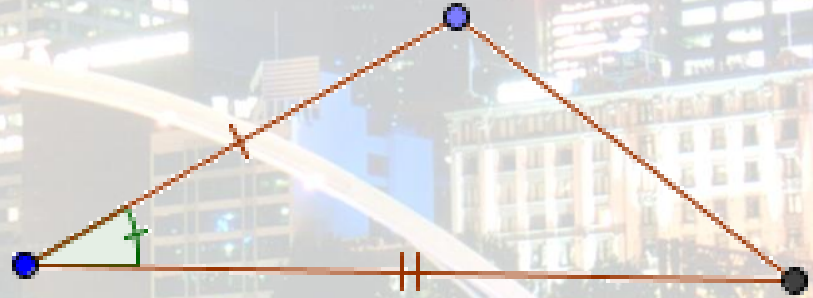
Given $\triangle ABC \cong \triangle DEF$, find the values of x and y .



Identifying Configurations

- Configurations:

- SSS
- SAS
- ASA
- AAS
- ASS
- AAA
- HL



Example 4

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA



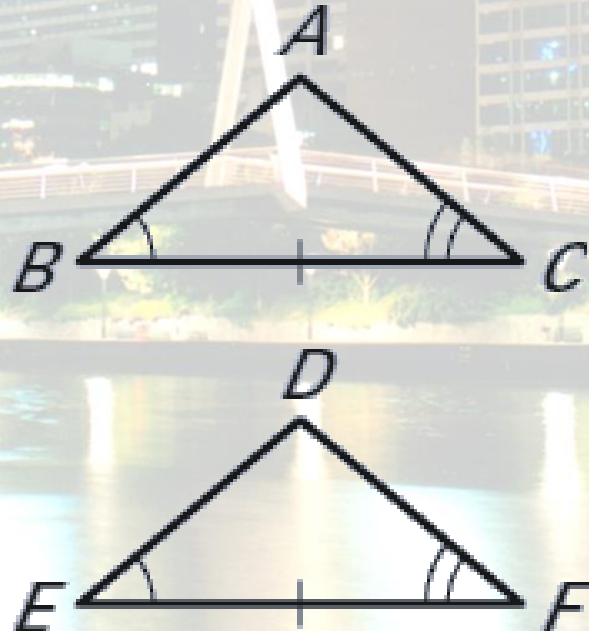
Example 5

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA



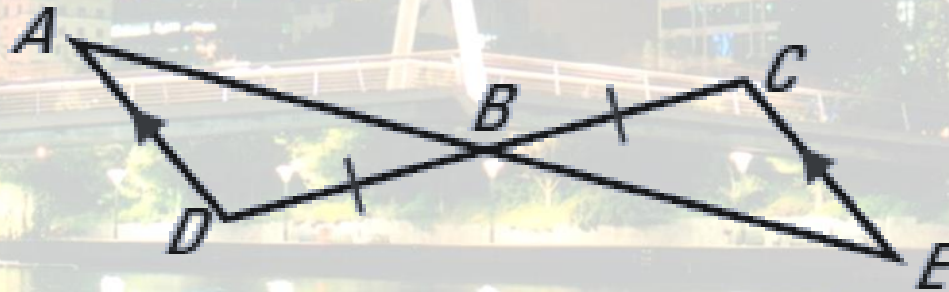
Example 6

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA



Example 7

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA



Example 8

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA



Example 9

- Determine whether the two triangles have the configuration of SSS SAS ASA AAS ASS or AAA

