

## Similarity Toolkit (CPM)

The similarity toolkit allows students to explore two triangles to determine congruency or similarity given SSS, SSA, SAS, AAA, etc.. Students show how two triangles are similar or congruent using rigid transformations (translation, rotation, and reflexion).

1. Click on the "Similarity Toolkit" link below. For additional help, click on the "Similarity Toolkit Video".

[Similarity Toolkit Video](#)

[Similarity Toolkit \(CPM\)](#)

2. Similarity Toolkit Basic Controls:

The screenshot shows the CPM Similarity Toolkit interface. On the left is a sidebar with the following sections:

- Notes:** A text area with the placeholder "click here to type notes".
- Show/Hide Labels:**
  - Points:** A button labeled "Show Angle Measures".
  - Sides:** Three buttons: "None", "Lengths" (selected), and "Names".
  - Other:** A button labeled "Visual Effects".
- Side Lengths and Ratios:** A table comparing the side lengths of two triangles,  $\triangle ABC$  and  $\triangle DEF$ .

On the right, two triangles are displayed:

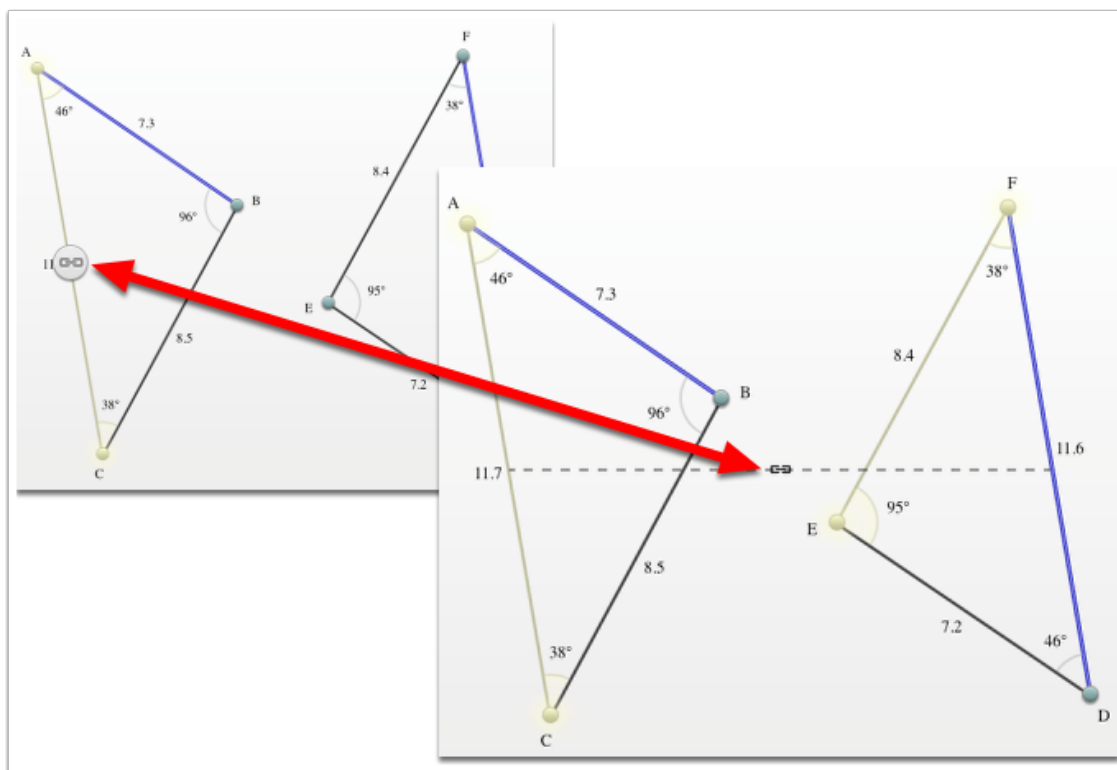
- $\triangle ABC$ :** Vertices A, B, and C. Angle A is  $46^\circ$ , Angle B is  $96^\circ$ , and Angle C is  $38^\circ$ . Side lengths are AB = 7.3, BC = 8.5, and AC = 11.7.
- $\triangle DEF$ :** Vertices D, E, and F. Angle F is  $38^\circ$ , Angle E is  $96^\circ$ , and Angle D is  $46^\circ$ . Side lengths are FE = 8.5, ED = 7.3, and FD = 11.7.

Red arrows point from the sidebar controls to the corresponding elements in the triangles: one to the Notes section, one to the Show Angle Measures button, and one to the Side Lengths and Ratios table.

$\triangle ABC$	$\triangle DEF$
a = 8.5	d = 8.5
b = 11.7	e = 11.7
c = 7.3	f = 7.3

Link more elements to see side length ratios.

3. Indicate what sides/angles are similar/congruent.



4. By going to the Advanced Settings, indicate what angles and sides you want shown!

