Investigate Properties of Similar Triangles Worksheet

Instructions on using the applet


To measure the length, click on this tool, then click on the line segment you want to measure.


To measure the angles, click on this tool, then click on the line segments forming the angle in an anticlockwise direction.

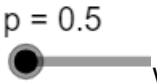
Note: After clicking the angle tool, dots will be plotted if you click anywhere besides the line segments. Use the undo tool ( ) to reverse actions.


Use this tool to drag the triangles to the desired position on the screen.


To move a label (measurements or vertices), click on this arrow, then move the label to the desired position.


Zoom in tool


Zoom out tool



With the mouse pointer on the black circle, press the left button and drag to the desired slider value.

ΔABC and ΔDEF are similar to each other. Similar shapes have the same shape but their sizes may be different.

1. Use applet "Investigate similarity of triangles" to complete this activity.

Move slider to P = 0.5					
Length	Length	Ratio (Express the ratio in its simplest form)	Angle	Angle	What do you observe?
AB =	DE =	AB:DE = =	$\hat{A}$ =	$\hat{D}$ =	
BC =	EF =	BC:EF = =	$\hat{B}$ =	$\hat{E}$ =	
CA =	FD =	CA:FD = =	$\hat{C}$ =	$\hat{F}$ =	
Move slider to P = 1.5					
AB =	DE =	AB:DE = =	$\hat{A}$ =	$\hat{D}$ =	
BC =	EF =	BC:EF = =	$\hat{B}$ =	$\hat{E}$ =	
CA =	FD =	CA:FD = =	$\hat{C}$ =	$\hat{F}$ =	
Move slider to P = 2					
AB =	DE =	AB:DE = =	$\hat{A}$ =	$\hat{D}$ =	
BC =	EF =	BC:EF = =	$\hat{B}$ =	$\hat{E}$ =	
CA =	FD =	CA:FD = =	$\hat{C}$ =	$\hat{F}$ =	

2. What can you say about the relationship between the sides of similar triangles?

_____

_____

3. What can you say about the size of the angles of similar triangles?

_____

4. Put the slider on P = 1. What do you notice? Explain.

_____

_____