You have been given a dynamic right angled triangle ABC.

Drag corner A. What happens to your triangle?

………………………………………………………………………….

Now drag corner C. What happens to your triangle?

………………………………………………………………………….

Set your triangle so that angle α is 45° . Keeping the angle at 45 °, vary the lengths of CB and AC. Record your findings in the table below. Fill in the fourth column too.
Now fix angle α at another angle and do the same. For each angle fill in three rows of the table.

Angle α	Length CB	Length AC	Length CB / Length AC
45 °			
45 °			
45 °			

What do you notice?

………………………………………………………………………..

………………………………………………………………………..

Using a calculator, type in: sin 45 =
What do you notice about your answer?

………………………………………………………………………….

Now do the same for your other angles. What do you notice?
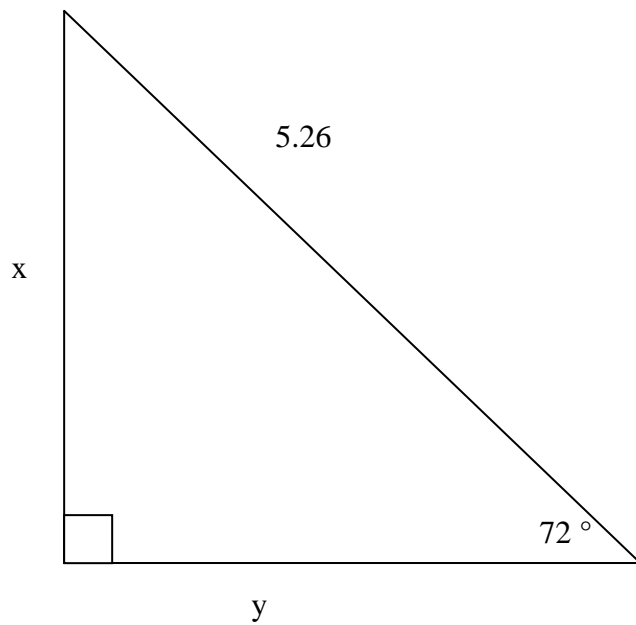
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Now you've discovered what sin means, investigate the other sides and fill in the table with your findings.

Angle α	Length BA	Length AC	Length BA/ Length AC

Do your findings relate to a button like sin on your calculator?

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Using what you have learnt, find the length of sides x and y.

5.26

x

72 °

y

Check your answers using the Geogebra triangle. Were you right?