

Mathematics

**Sine and cosine graphs.**  
**Downloadable resource.**  
**Lesson 12 of 12.**

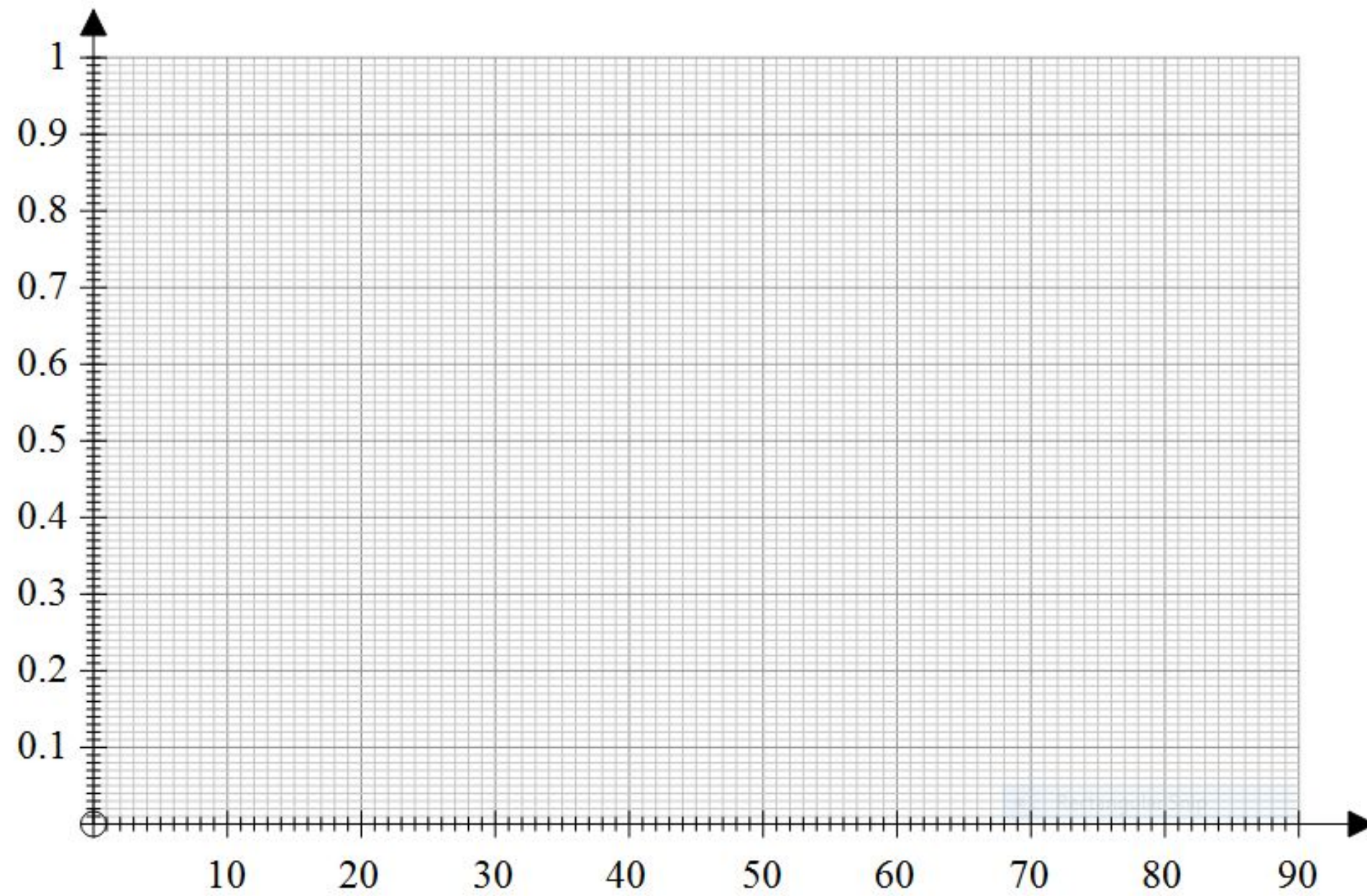
Dr Rim Saada



# Try this

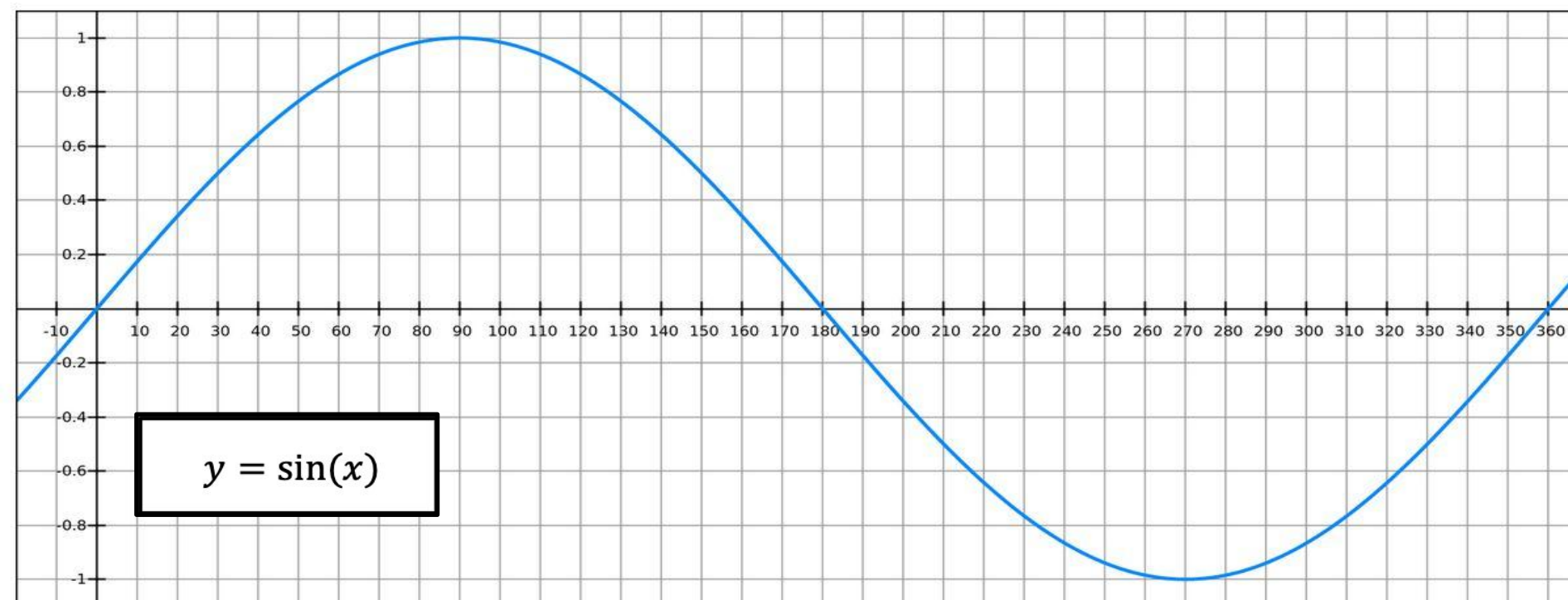
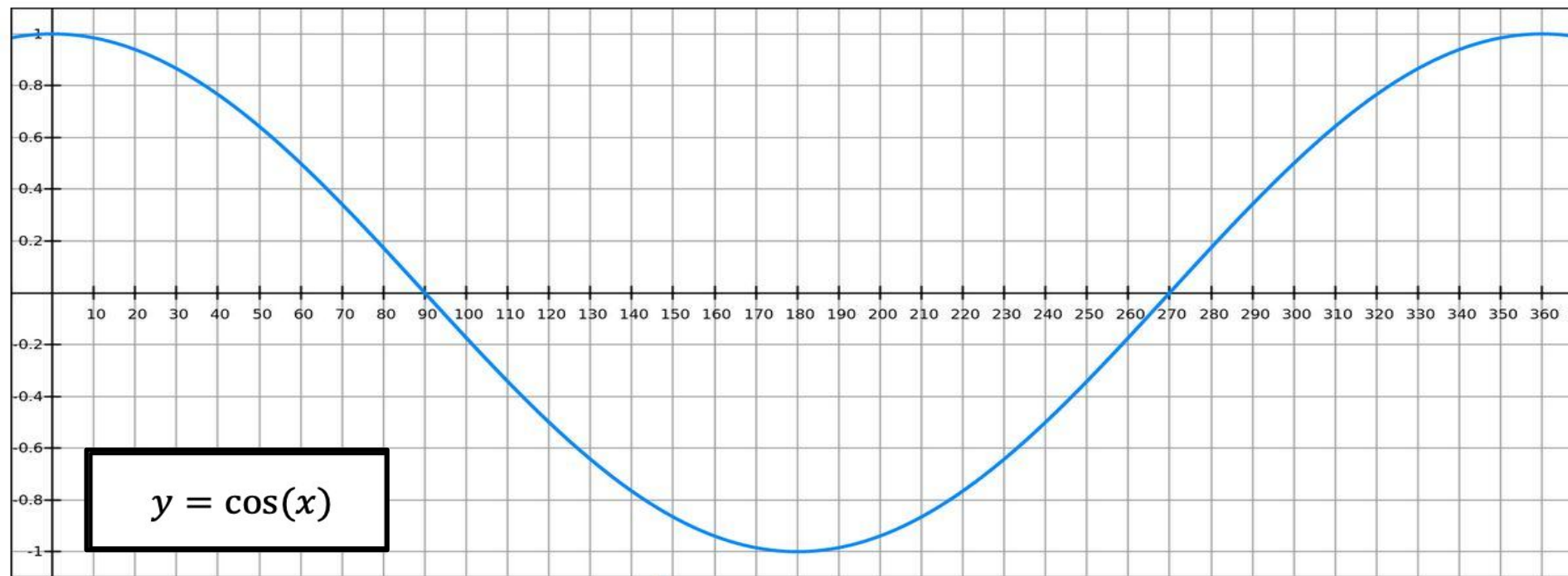
The table to the right, shows sine  $\theta$  for  $10^\circ$  -  $80^\circ$  angles . Use the table to plot the sine graph.

Angle, $\theta$	$10^\circ$	$20^\circ$	$30^\circ$	$40^\circ$	$50^\circ$	$60^\circ$	$70^\circ$	$80^\circ$
Sine( $\theta$ )	0.17	0.34	0.5	0.64	0.77	0.87	0.94	0.98



# Independent task

1) How are these graphs similar? How are they different?



2) Write down two angles which:

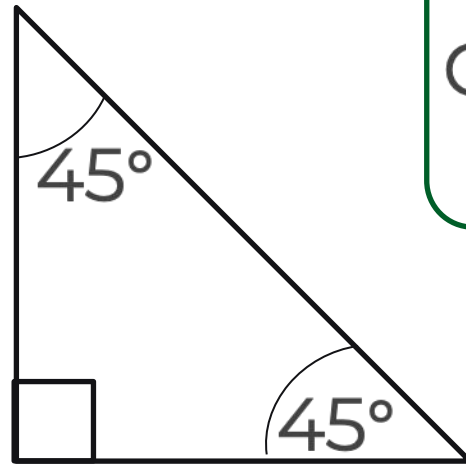
...have the same sine value.

...have the same cosine value.



# Explore

Why is .....



$$\cos 45^\circ = \sin 45^\circ ?$$

$$\cos 0^\circ = 1 ?$$

$$\sin 0^\circ = 0 ?$$

$$\sin 90^\circ = 1 ?$$

$$\cos 90^\circ = 0 ?$$

