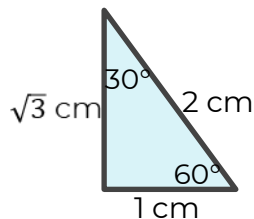


Know the Trigonometry ratios for 0° , 30° , 45° , 60° and 90°



Know the Trigonometry ratios for 0° , 30° , 45° , 60° and 90°

1. Here is a right- angled triangle.

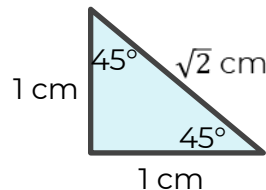


Use the triangle to find the exact values.

- a) $\cos 30^\circ$
- b) $\cos 60^\circ$
- c) $\sin 30^\circ$
- d) $\sin 60^\circ$
- e) $\tan 30^\circ$
- f) $\tan 60^\circ$

g) Which of the values are the same?

2. Here is a right- angled triangle.



Use the triangle to find the exact values.

- a) $\sin 45^\circ$
- b) $\cos 45^\circ$
- c) $\tan 45^\circ$

d) Which of the values are the same?

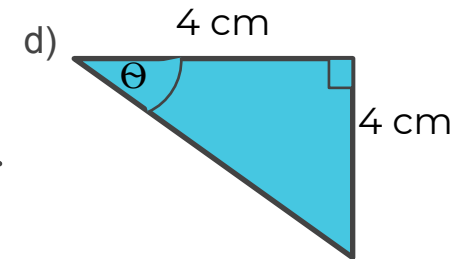
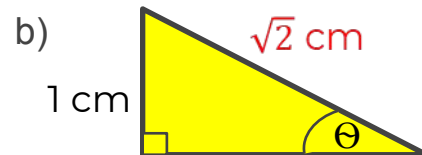
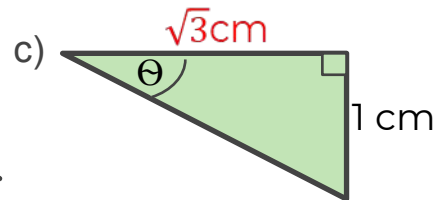
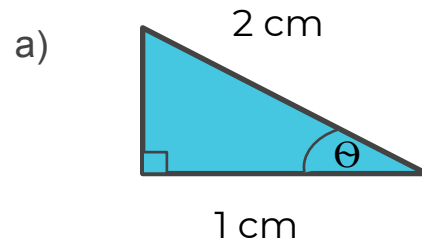


Know the Trigonometry ratios for 0° , 30° , 45° , 60° and 90°

3. Complete the table below.

	0°	30°	45°	60°	90°
$\sin(\theta)$					
$\cos(\theta)$					
$\tan(\theta)$					

4. Find the missing angles in the triangles below. Give your answers as exact values.

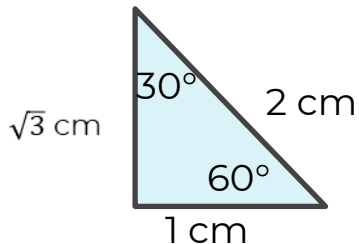


Answers



Know the Trigonometry ratios for 0° , 30° , 45° , 60° and 90°

1. Here is a right-angled triangle.

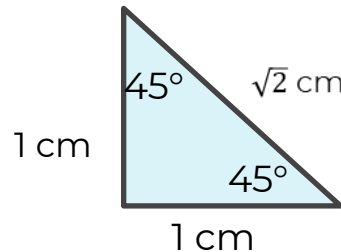


Use the triangle to find the exact values.

- a) $\cos 30^\circ = \frac{\sqrt{3}}{2}$ d) $\sin 60^\circ = \frac{\sqrt{3}}{2}$
 b) $\cos 60^\circ = \frac{1}{2}$ e) $\tan 30^\circ = \frac{1}{\sqrt{3}}$
 c) $\sin 30^\circ = \frac{1}{2}$ f) $\tan 60^\circ = \sqrt{3}$
 g) Which of the values are the same?

i) $\cos 30^\circ$ and $\sin 60^\circ$ ii) $\sin 30^\circ$ and $\cos 60^\circ$

2. Here is a right-angled triangle.



Use the triangle to find the exact values.

- a) $\sin 45^\circ = \frac{1}{\sqrt{2}}$
 b) $\cos 45^\circ = \frac{1}{\sqrt{2}}$
 c) $\tan 45^\circ = 1$
 d) Which of the values are the same?

$\sin 45^\circ$ and $\cos 45^\circ$



Know the Trigonometry ratios for 0° , 30° , 45° , 60° and 90°

3. Complete the table below.

	0°	30°	45°	60°	90°
$\sin(\theta)$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$\cos(\theta)$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$\tan(\theta)$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	N/A

4. Find the missing angles in the triangles below. Give your answers as exact values.

