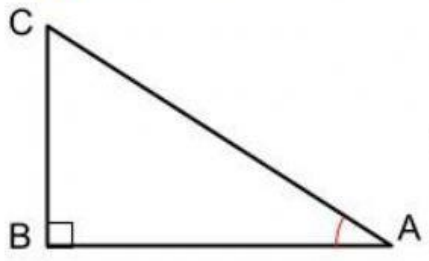
Trigonometry

Trigonometric Ratios



(write in terms of AB , BC and AC)

1) sin A = $\frac{\square}{\square}$

2) cos A = $\frac{\square}{\square}$

3) tan A = $\frac{\square}{\square}$

(write in terms of sin,cos and tan)

4) cot A= $\frac{1}{\square}$

5) cosec A = $\frac{1}{\square}$

6) sec A = $\frac{1}{\square}$

(write in terms of sin,cos, tan, cosec , sec and cot)

Sin(90-A) = ☐ cos(90-A) = ☐

tan(90-A) = ☐ cot(90-A) = ☐

cosec(90-A)= ☐ sec(90-A) = ☐

Trigonometric Ratios of standard angles :

(Select the correct option)

sin 0° = (0 , ½ , 1)	cos 0° = (0 , ½ , 1)	tan 0° = (0 , undefined)
sin 30° = (1/√2 , √3/2, ½)	cos 30° = (1/√2 , √3/2, ½)	tan30° =(√3 , 1/√2 , 1/√3)
sin 45° = (1/√2 , √3/2, ½)	cos 45° = (1/√2 , √3/2, ½)	tan 45°=(√3 , 1 , 0, 1/2)
sin 60° = (1/√2 , √3/2, ½)	cos 60° = (1/√2 , √3/2, ½)	tan 60°=(√3 , 1/√2 , 1/√3)
sin 90° = (0 , ½ , 1)	cos 90° = (0 , ½ , 1)	tan 90° =(0 , undefined)

Trigonometric Identities :

(Select the correct identities)

$\sin^2A + \cos^2A = 1$	$\sec^2A + \tan^2A = 1$	$\text{cosec}^2A - 1 = \cot^2A$
$\sin^2A - \cos^2A = 1$	$1 + \tan^2A = \sec^2A$	$1 + \cot^2A = \text{cosec}^2A$
$\cos^2A = 1 - \sin^2A$	$1 - \sec^2A = \tan^2A$	$1 - \text{cosec}^2A = \cot^2A$
$\sin^2A = 1 + \cos^2A$	$\text{cosec}^2A - \tan^2A = 1$	$\text{cosec}^2A - \cot^2A = 1$
$1 - \cos^2A = \sin^2A$	$\sec^2A - \tan^2A = 1$	$\text{cosec}^2A + \cot^2A = 1$
$\sin^2A - 1 = \cos^2A$	$\sec^2A - 1 = \tan^2A$	$\sec^2A + \text{cosec}^2A = 1$

LIVEWORKSHEETS