

Name : \_\_\_\_\_

## Trigonometric Ratios

Use the unit circle to find the exact value of each trigonometric ratio.

### Part A

1)  $\cos 30^\circ$

\_\_\_\_\_

2)  $\tan 225^\circ$

\_\_\_\_\_

3)  $\sec 300^\circ$

\_\_\_\_\_

4)  $\csc 150^\circ$

\_\_\_\_\_

5)  $\cot 45^\circ$

\_\_\_\_\_

6)  $\sin 120^\circ$

\_\_\_\_\_

### Part B

7)  $\sec \frac{\pi}{2}$

\_\_\_\_\_

8)  $\cos \frac{\pi}{3}$

\_\_\_\_\_

9)  $\tan \frac{5\pi}{6}$

\_\_\_\_\_

10)  $\sin \frac{3\pi}{4}$

\_\_\_\_\_

11)  $\csc \frac{11\pi}{6}$

\_\_\_\_\_

12)  $\cot \frac{4\pi}{3}$

\_\_\_\_\_

Name : \_\_\_\_\_

## Answer key

Sheet 1

# Trigonometric Ratios

Use the unit circle to find the exact value of each trigonometric ratio.

### Part A

1)  $\cos 30^\circ$

$\frac{\sqrt{3}}{2}$

2)  $\tan 225^\circ$

1

3)  $\sec 300^\circ$

2

4)  $\csc 150^\circ$

2

5)  $\cot 45^\circ$

1

6)  $\sin 120^\circ$

$\frac{\sqrt{3}}{2}$

### Part B

7)  $\sec \frac{\pi}{2}$

$\infty$

8)  $\cos \frac{\pi}{3}$

$\frac{1}{2}$

9)  $\tan \frac{5\pi}{6}$

$-\frac{\sqrt{3}}{3}$

10)  $\sin \frac{3\pi}{4}$

$\frac{\sqrt{2}}{2}$

11)  $\csc \frac{11\pi}{6}$

-2

12)  $\cot \frac{4\pi}{3}$

$\frac{\sqrt{3}}{3}$