

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

∞

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

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