VD Unit 4 Topic 4 Part 1

1. Find θ ($0 \le \theta < 2\pi$) for a given trigonometric value of θ.

trigonometric value	θ
$\sin\theta = -\frac{1}{2}$	$\frac{7\pi}{6}, \frac{11\pi}{6}$
$\cos\theta = \frac{\sqrt{3}}{2}$	$\frac{\pi}{6}, \frac{11\pi}{6}$
$\cos\theta = -\frac{\sqrt{3}}{2}$	$\frac{5\pi}{6}, \frac{7\pi}{6}$
$\tan\theta = -1$	$\frac{3\pi}{4}, \frac{7\pi}{4}$
$\sec\theta = \sqrt{2}$	$\frac{\pi}{4}, \frac{7\pi}{4}$
$\cos\theta = -\frac{\sqrt{2}}{2}$	$\frac{3\pi}{4}, \frac{5\pi}{4}$
$\csc\theta = 2$	$\frac{\pi}{6}, \frac{5\pi}{6}$
$\tan\theta = \sqrt{3}$	$\frac{\pi}{3}, \frac{4\pi}{3}$

2. Given a trigonometric ratio of ϕ and the quadrant in which the terminal side of ϕ lands. Find another assigned trigonometric ratio of ϕ

Given	Find	Ans
$\cot\phi = 4$ and ϕ is at the 3rd quadrant	$\sin\phi$	$-\frac{\sqrt{17}}{17}$
$\sec\phi = -\frac{9}{4}$ and ϕ is at the 3rd quadrant	$\tan\phi$	$\frac{\sqrt{65}}{4}$
$\csc\phi = \frac{7}{6}$ and ϕ is at the 2nd quadrant	$\cos\phi$	$-\frac{\sqrt{13}}{7}$
$\cos\phi = -\frac{8}{17}$ and ϕ is at the 3rd quadrant	$\csc\phi$	$-\frac{17}{15}$
$\tan\phi = \frac{3}{2}$ and ϕ is at the 1st quadrant	$\csc\phi$	$\frac{\sqrt{13}}{3}$
$\csc\phi = -2$ and ϕ is at the 4th quadrant	$\cot\phi$	$-\sqrt{3}$
$\sec\phi = -20$ and ϕ is at the 2nd quadrant	$\tan\phi$	$-\sqrt{399}$
$\cos\phi = -\frac{1}{5}$ and ϕ is at the 3rd quadrant	$\sin\phi$	$-\frac{2\sqrt{6}}{5}$