Algebra 3 Review Worksheet Assignment # 4

(1) Complete the following table please.

Radian Measure	$\frac{7\pi}{3}$		$\frac{17\pi}{6}$		$\frac{8\pi}{3}$		$-\frac{3\pi}{4}$	
Degree Measure		315°		−90°		−150°		360°
Sin								
Cos								
Tan								
Cot								
Sec								
Csc								

(2) $\text{Cos}(\theta) = -\frac{5}{13}$, θ is in Quadrant II . Find the remaining 5 trig. functions of θ.

(3) $\text{Tan}(\theta) = \frac{1}{3}$, θ is in Quadrant III . Find the remaining 5 trig. functions of θ.

(4) $\text{Csc}(\theta) = -5$, θ is in Quadrant IV . Find the remaining 5 trig. functions of θ.

(5) Find the values of the six trig. functions of θ, if θ is an angle in standard position with the point $(4 , -3)$ on its terminal ray.

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Answers

(1)

Radian Measure	$\frac{7\pi}{3}$	$\frac{7\pi}{4}$	$\frac{17\pi}{6}$	$-\frac{\pi}{2}$	$\frac{8\pi}{3}$	$-\frac{5\pi}{6}$	$-\frac{3\pi}{4}$	2π
Degree Measure	420°	315°	510°	–90°	480°	–150°	–135°	360°
Sin	$\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	–1	$\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	0
Cos	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	1
Tan	$\sqrt{3}$	–1	$-\frac{1}{\sqrt{3}}$	—	$-\sqrt{3}$	$\frac{1}{\sqrt{3}}$	1	0
Cot	$\frac{1}{\sqrt{3}}$	–1	$-\sqrt{3}$	0	$-\frac{1}{\sqrt{3}}$	$\sqrt{3}$	1	—
Sec	2	$\sqrt{2}$	$-\frac{2}{\sqrt{3}}$	—	–2	$-\frac{2}{\sqrt{3}}$	$-\sqrt{2}$	1
Csc	$\frac{2}{\sqrt{3}}$	$-\sqrt{2}$	2	–1	$\frac{2}{\sqrt{3}}$	–2	$-\sqrt{2}$	—

(2) $\sin = \frac{12}{13}$, $\tan(\theta) = -\frac{12}{5}$, $\cot(\theta) = -\frac{5}{12}$, $\sec(\theta) = -\frac{13}{5}$, $\csc(\theta) = \frac{13}{12}$

(3) $\sin(\theta) = -\frac{1}{\sqrt{10}}$, $\cos(\theta) = -\frac{3}{\sqrt{10}}$, $\cot(\theta) = 3$, $\sec(\theta) = -\frac{\sqrt{10}}{3}$, $\csc(\theta) = -\sqrt{10}$

(4) $\sin(\theta) = -\frac{1}{5}$, $\cos(\theta) = \frac{2\sqrt{6}}{5}$, $\tan(\theta) = -\frac{1}{2\sqrt{6}}$, $\cot(\theta) = -2\sqrt{6}$, $\sec(\theta) = \frac{5}{2\sqrt{6}}$

(5) $\sin(\theta) = -\frac{3}{5}$, $\cos(\theta) = \frac{4}{5}$, $\tan(\theta) = -\frac{3}{4}$, $\cot(\theta) = -\frac{4}{3}$, $\sec(\theta) = \frac{5}{4}$, $\csc(\theta) = -\frac{5}{3}$