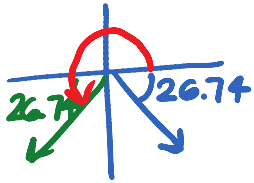


****Do your best to complete without your unit circle in front of you****

(1-6) Solve the equation for θ .

1. $\sin \theta = -0.45; 180^\circ < \theta < 270^\circ$

$\theta = \sin^{-1}(-0.45) \approx -26.74^\circ$



$180 + 26.74 = 206.74^\circ$

check! $\sin 206.74^\circ = -0.45 \checkmark$

2. $\tan \theta = 3.2; 180^\circ < \theta < 270^\circ$

$\theta = \tan^{-1}(3.2) = 72.65^\circ$

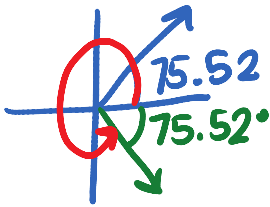


$180 + 72.65 = 252.65^\circ$

check! $\tan 252.65^\circ = 3.2 \checkmark$

3. $\cos \theta = 0.25; 270^\circ < \theta < 360^\circ$

$\theta = \cos^{-1}(0.25) \approx 75.52^\circ$

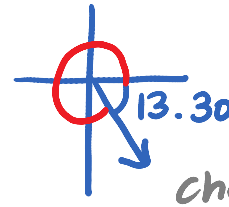


$360 - 75.52 = 284.48^\circ$

check! $\cos(284.48^\circ) = .25 \checkmark$

4. $\sin \theta = -0.23; 270^\circ < \theta < 360^\circ$

$\theta = \sin^{-1}(-.23) = -13.30^\circ$



$360 - 13.30 = 346.70^\circ$

check! $\sin 346.70^\circ = -.23 \checkmark$

5. $\tan \theta = 4.7; 180^\circ < \theta < 270^\circ$

$\theta = \tan^{-1}(4.7) \approx 77.99^\circ$



$180 + 77.99 = 257.99^\circ$

check! $\tan 257.99^\circ = 4.7 \checkmark$

6. $\cos \theta = -0.82; 180^\circ < \theta < 270^\circ$

$\theta = \cos^{-1}(-0.82) = 145.08^\circ$



$180 + 34.92 = 214.92^\circ$

check! $\cos 214.92^\circ = -0.82 \checkmark$

(7-10) Evaluate the expression in both radians and degrees without using a calculator.

1. $\cos^{-1} 1$

$\cos \theta = 1$

what angle has an x-value of 1?

0° or 0 radians

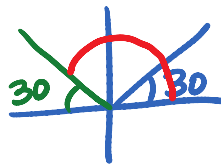
2. $\tan^{-1} \sqrt{3}$

60° or $\frac{\pi}{3}$

3. $\sin^{-1}(-\frac{\sqrt{2}}{2})$

-45° or $-\frac{\pi}{4}$

4. $\cos^{-1}(-\frac{\sqrt{3}}{2})$ $\cos 30 = \frac{\sqrt{3}}{2} \Rightarrow 2^{nd}$ Quad



$180 - 30 = 150^\circ$ or $\frac{5\pi}{6}$

(11-14) Evaluate the function without using a calculator.

5. $\tan 150^\circ$

$30^\circ = (\frac{\sqrt{3}}{2}, \frac{1}{2})$

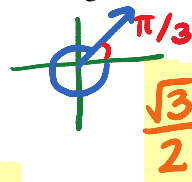
2nd QUAD
 $(-\frac{\sqrt{3}}{2}, \frac{1}{2})$

$\tan 150^\circ = -\frac{\sqrt{3}}{3}$

6. $\sec(-480^\circ)$

$480 - 360 = 120^\circ$
 -120°
 $60^\circ = (\frac{1}{2}, \frac{\sqrt{3}}{2})$
3rd QUAD
 $(-\frac{1}{2}, -\frac{\sqrt{3}}{2}) \Rightarrow -2$

7. $\sin(-\frac{5\pi}{3})$ $(\frac{1}{2}, \frac{\sqrt{3}}{2})$



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

8. $\cos \frac{11\pi}{6}$

$(\frac{\sqrt{3}}{2}, -\frac{1}{2})$



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