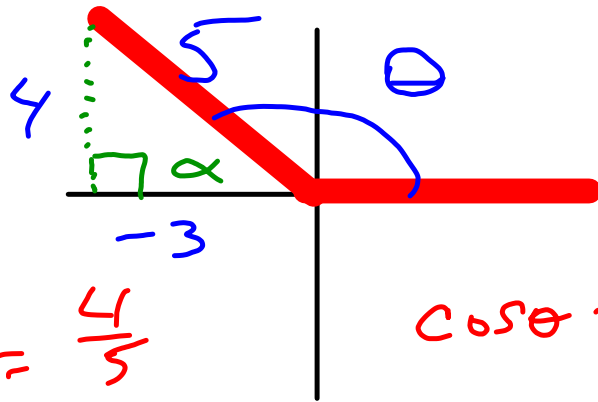


FRI 9-15-05

P. 19 23 $(-3, 4)$



$$\sin \theta = \frac{4}{5}$$

$$\tan \theta = \frac{-4}{3}$$

$$\sec \theta = \frac{-5}{3}$$

$$\cos \theta = \frac{-3}{5}$$

$$\cot \theta = \frac{-3}{4}$$

$$\csc \theta = \frac{5}{4}$$

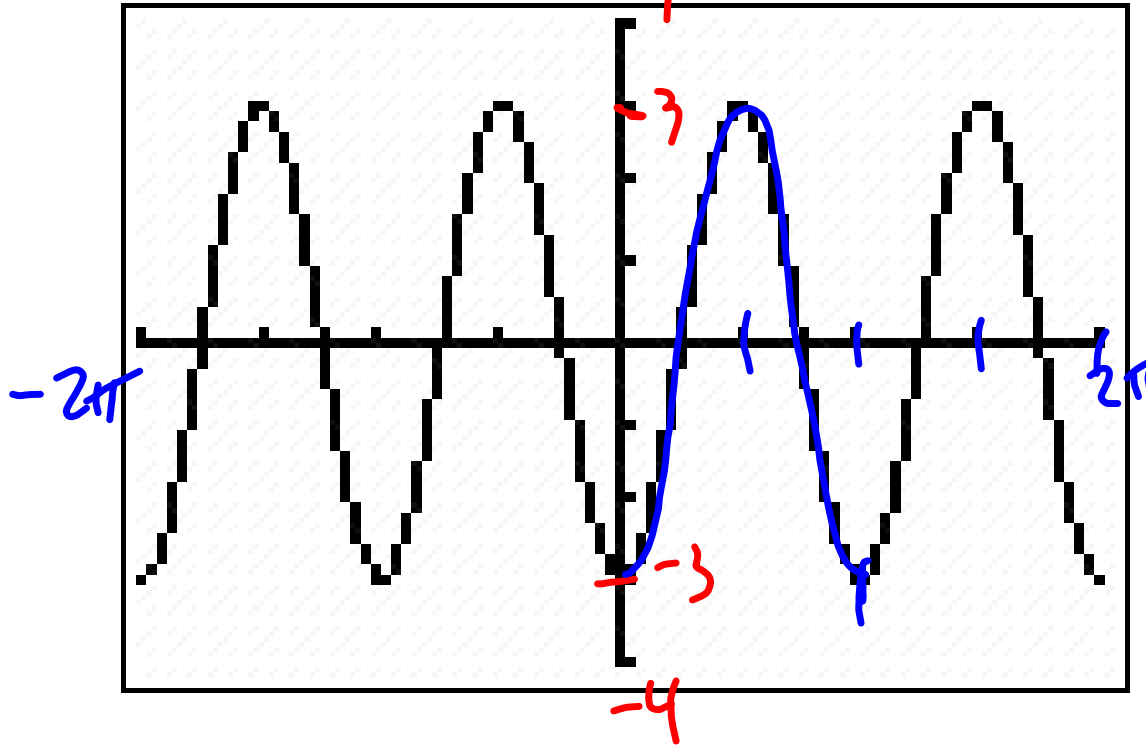
F1- Tools	F2- Algebra	F3- Calc	F4- Other	F5- PrgmID	F6- Clean Up
■ sin ⁻¹ (4/5)					53.1301
■ 180 - 53.130102354156					126.87
■ 126.86989764584 - 126					.869898
■ .86989764584 · 60					52.1939
ans(1)*60					
MAIN		DEG AUTO		FUNC 5/30	

$$\theta \approx \underline{\underline{126^{\circ} 52'}}$$

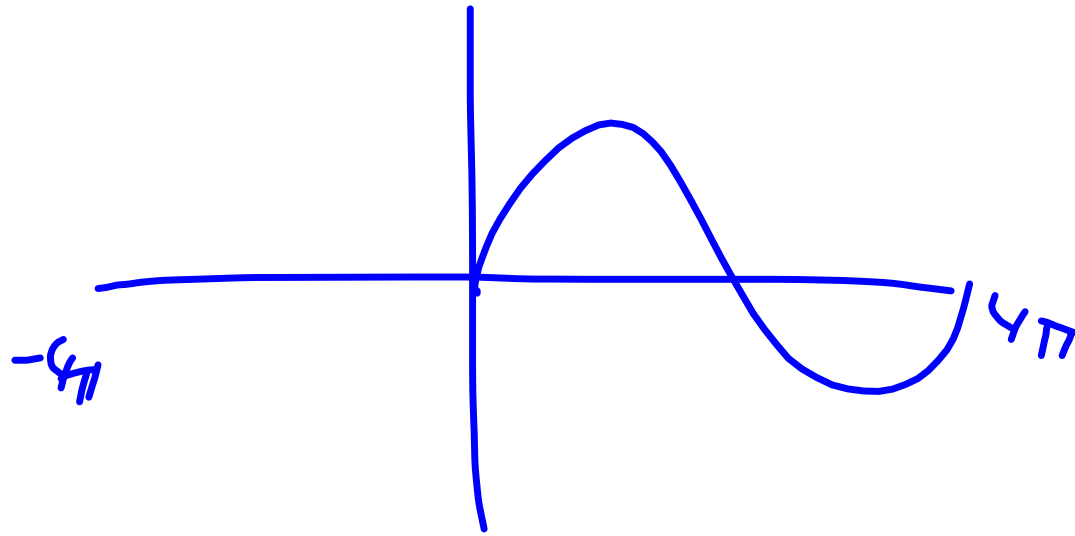
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$$y = -3 \cos 2x$$

4 ← Period = π



$$Y = \frac{1}{2} \quad \text{PERIOD} = 4\pi$$



$$\int \sin 2x dx$$

$$\int \underline{(1 - 2\sin^2 x)} dx$$

$$= \int 2 \sin x \cos x dx \dots \cos 2x \dots$$

Solve: $0 \leq x < 2\pi$ RADIANS

$$2\cos^2 x - \cos x = 1$$

$$2\cos^2 x - \cos x - 1 = 0$$

$$2u^2 - u = 1$$

$$(2\cos x + 1)(\cos x - 1) = 0$$

$$2\cos x + 1 = 0 \quad \text{or} \quad \cos x - 1 = 0$$

$$2\cos x = -1$$

$$\cos x = 1$$

$$\left\{ 0, \frac{2\pi}{3}, \frac{4\pi}{3} \right\}$$

$$\cos x = -\frac{1}{2}$$

$$x = 0$$

$$\{x: x = 0 + 2k\pi \vee$$

$$x = \frac{2\pi}{3} + 2k\pi$$

$$\vee x = \frac{4\pi}{3} + 2k\pi, \\ k \in \mathbb{Z} \}$$

$$x = \frac{2\pi}{3}, \frac{4\pi}{3}$$

$$\text{Ex) } \text{Arctan}(\sqrt{3}) = \mu$$

$$\rightarrow \tan \mu = \sqrt{3} \quad -\frac{\pi}{2} < \mu < \frac{\pi}{2}$$

$$\mu = \frac{\pi}{3}$$

$$\therefore \text{Arctan}(\sqrt{3}) = \frac{\pi}{3}$$

$$\sin^2 x + \cos^2 x = 1$$

$$\cos^2 x = 1 - \sin^2 x$$

$$\sin^2 x = 1 - \cos^2 x$$

$$\int (\sec^2 x - 1) dx$$

$$\frac{\sin^2 x}{\cos^2 x} + \frac{\cos^2 x}{\cos^2 x} = 1$$

$$\tan^2 x + 1 = \sec^2 x$$

$$\frac{\sin^2 x}{\sin^2 x} + \frac{\cos^2 x}{\sin^2 x} = 1$$

$$1 + \cot^2 x = \csc^2 x$$