

Exam Review

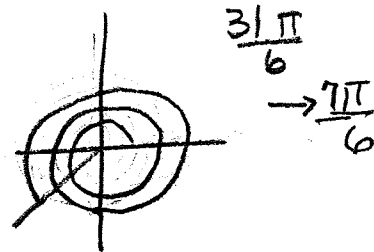
Unit 5 page 582-585

7, 11, 16, 17, 33-35A, 48-58E, 67-710, 84-102E 114, 115

(7) $-\frac{5\pi}{6} \cdot \frac{180}{\pi} = -150^\circ$

(16) $\frac{31\pi}{6}$

$5\pi + \frac{\pi}{6}$

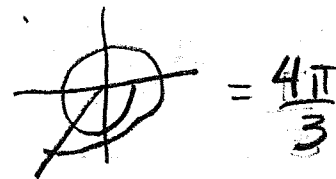


(11)



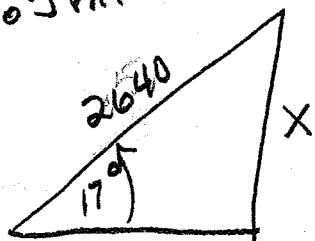
(17) $-\frac{8\pi}{3}$

$-2\pi + (-\frac{2\pi}{3})$



(33)

$0.5 \text{ mi} = 2640 \text{ ft}$



$\sin 17^\circ = \frac{X}{2640}$

$2640 \sin 17^\circ = X$

$(771.86) \quad X \approx 772$

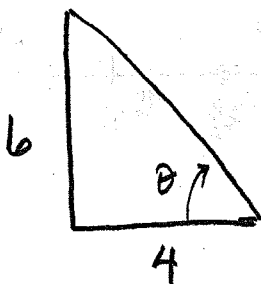
(34)

$\tan 32^\circ = \frac{X}{50}$

$50 \tan 32^\circ = X$

$(31.24) \quad X \approx 31 \text{ m}$

(35)



$\tan \theta = \frac{6}{4}$

$\theta = \tan^{-1}\left(\frac{3}{2}\right)$

$\theta \approx 56^\circ$

(56.31)

$$(48) \quad \sin 240^\circ = -\sin(60^\circ) = -\frac{\sqrt{3}}{2}$$

Q III

$$(50) \quad \sec \frac{7\pi}{4} = \sec \frac{\pi}{4} = \sqrt{2}$$

Q IV

$$(52) \quad \cot(-210^\circ) = -\cot 30^\circ = -\sqrt{3}$$

Q II

$$(54) \quad \sin\left(-\frac{\pi}{3}\right) = -\sin \frac{\pi}{3} = -\frac{\sqrt{3}}{2}$$

Q IV

$$(56) \quad \tan \frac{13\pi}{4} = \tan \frac{\pi}{4} = 1$$

Q III

$$(58) \quad \cos\left(-\frac{35\pi}{6}\right) = \cos \frac{\pi}{6} = \frac{\sqrt{3}}{2}$$

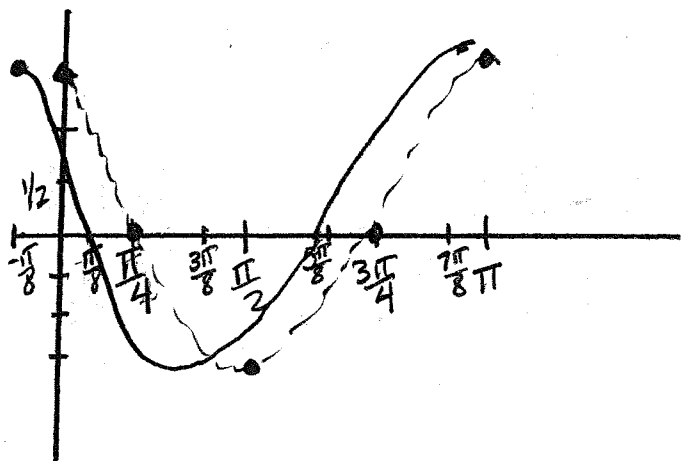
Q II

$$(67) \quad y = \frac{3}{2} \cos\left(2x + \frac{\pi}{4}\right)$$

$$A = \frac{3}{2}$$

$$p = \frac{2\pi}{2} = \pi$$

$$p.s = \frac{-\frac{\pi}{4}}{2} = -\frac{\pi}{8}$$



69

$$y = -3\sin\left(\frac{\pi}{3}x - 3\pi\right)$$

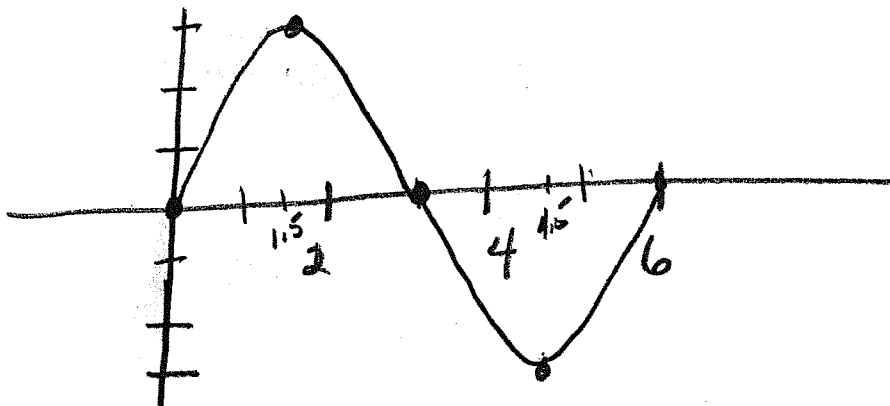
reflect over x -axis

$$A = 3$$

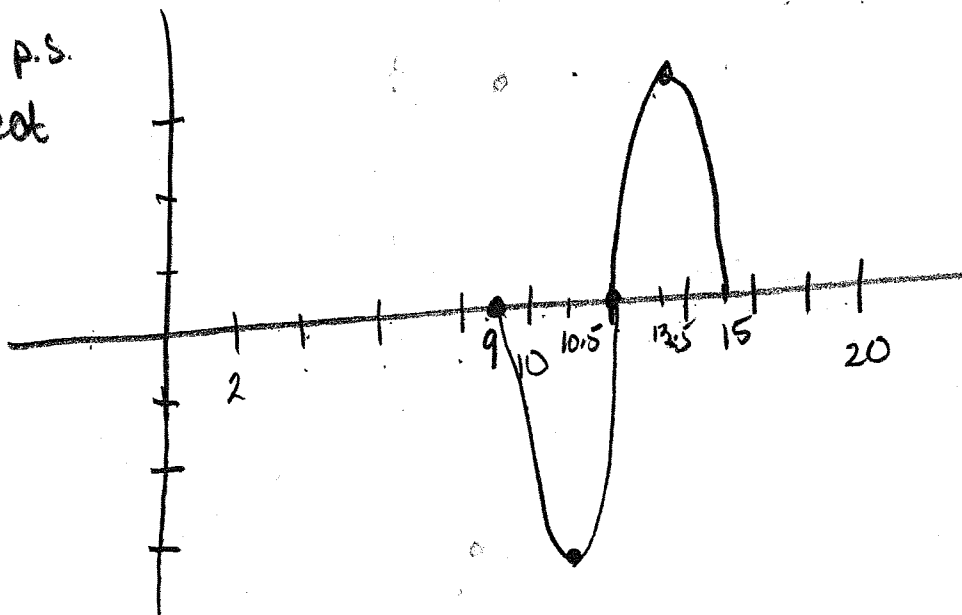
$$p = \frac{2\pi}{\frac{\pi}{3}} = 2\pi \cdot \frac{3}{\pi} = 6$$

$$p.s = -\frac{3\pi}{\frac{\pi}{3}} = 3\pi \cdot \frac{3}{\pi} = 9$$

A, p.



previous curve, p.s.
+ reflect



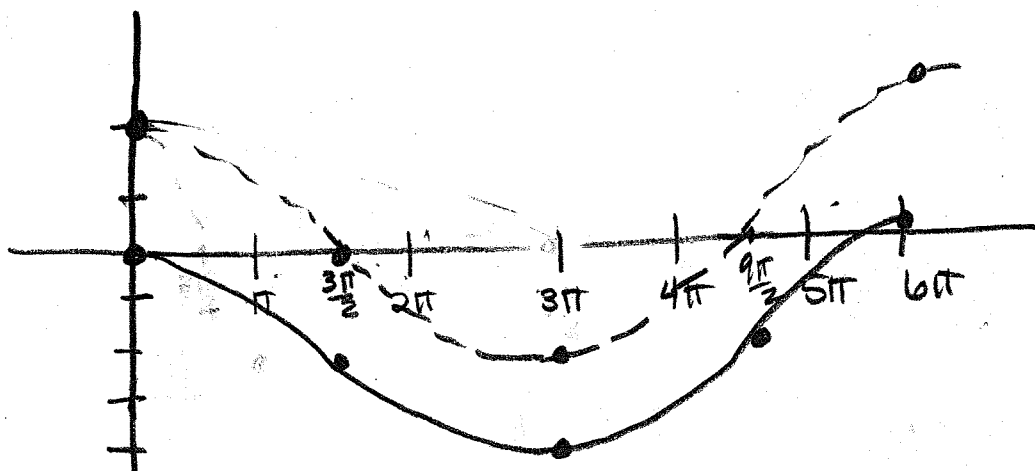
71

$$y = 2 \cos \frac{1}{3}x - 2$$

$$A = 2$$

$$p = \frac{2\pi}{\frac{1}{3}} = 6\pi \quad \left. \vphantom{p} \right\} \text{dashed}$$

vert shift down 2 \rightarrow solid



84 $\sin^{-1} 1 = \frac{\pi}{2}$

86 $\tan^{-1} 1 = \frac{\pi}{4}$

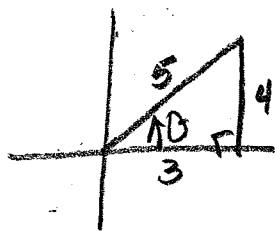
88 $\cos^{-1}(-\frac{1}{2}) = \frac{2\pi}{3}$

90 $\cos(\sin^{-1} \frac{\sqrt{2}}{2}) = \cos \frac{\pi}{4} = \frac{\sqrt{2}}{2}$

92 $\tan(\sin^{-1}(-\frac{1}{2})) = \tan(-\frac{\pi}{6}) = -\frac{\sqrt{3}}{3}$

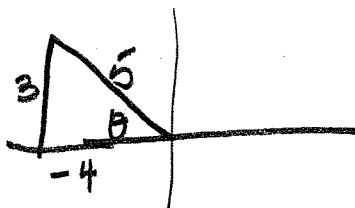
94 $\csc(\tan^{-1}(\frac{\sqrt{3}}{3})) = \csc(\frac{\pi}{6}) = 2$

$$(96) \sin(\cos^{-1} \frac{3}{5})$$



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

$$(98) \tan(\cos^{-1}(-\frac{4}{5}))$$

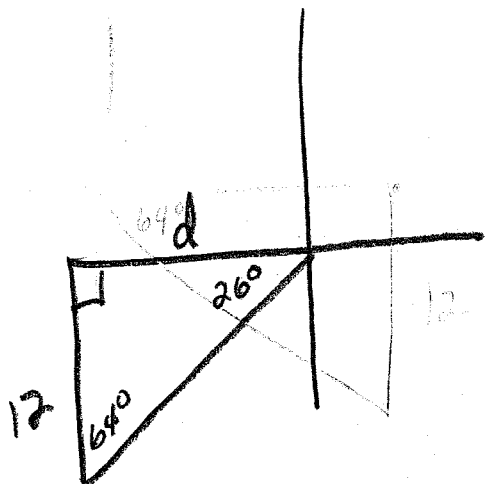


$$\tan \theta = -\frac{3}{4}$$

$$(100) \sin^{-1}(\sin \frac{\pi}{3}) = \sin^{-1}(\frac{\sqrt{3}}{2}) = \frac{\pi}{3}$$

$$(102) \sin^{-1}(\cos \frac{2\pi}{3}) = \sin^{-1}(-\frac{1}{2}) = -\frac{\pi}{6}$$

(114)

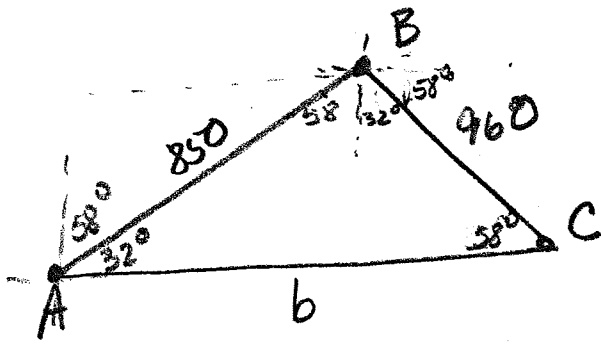


$$\tan 64^\circ = \frac{d}{12}$$

$$12 \tan 64^\circ = d$$

$$d \approx 24.6$$

115



$\angle B = 90^\circ$ so

$$b^2 = 850^2 + 960^2$$

$$b = \sqrt{1,644,100}$$

$$\approx 1282.2$$