F3.4

PRE-CALCULUS **Assignment #_____**

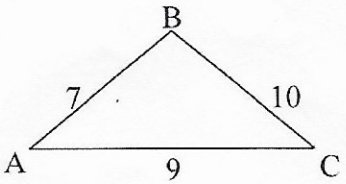
EOC Review#2

Name_____ **Date**_____ **Per**_____

Show all the work. NO WORK = NO CREDIT

1) Find the area of a triangle with sides 15, 18, and 30. **Round the answer to the nearest hundredth.**

2) Find $\cos B$ for ΔABC. (to four decimal places)



3) Two sides of a triangle have sides measuring 5 and 8. They meet at an 85° angle. Find the length of the third side. **Round to the nearest unit.**

4) In ΔABC m<A = 70°, m<C = 50°, b = 8. Find the measure of side "a" **to the nearest hundredth.**

In problems 6-8, find the exact answer.

5) $\text{Tan}^{-1}(\sin\frac{\pi}{2}) = ?$

6) $\text{Cos}^{-1}(\cos\frac{2\pi}{3}) = ?$

7) $\text{Sin}^{-1}(\cos\frac{\pi}{2}) = ?$

8) $\text{Cos}^{-1}(\sin\frac{5\pi}{4}) = ?$

9) According to the Law of Sines, in any ΔABC: (Hint: Draw ΔABC. Notice $\overline{AB}$ is the same as side c, and so on) AB = c BC = a AC = b

a) AB sinA =

b) AC sin C =

c) BC sin B=

10) Evaluate for $0 \le x \le 2\pi$:

a) $\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$

b) $\sin^{-1}\left(\frac{1}{2}\right)$

c) $\tan^{-1} 0$

d) $\sec^{-1}$(undefined)

e) $\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

f) $\tan^{-1} 1$

$-\frac{\pi}{4}$

1)	102.59 Sq. Units
2)	$\cos\theta \approx .4857$
3)	9
4)	8.68
5)	$\pi/4$
6)	$2\pi/3$
7)	0
8)	$3\pi/4$
9a)	BC sinC
b)	AB sin B
c)	AC sin A
10a)	$\frac{5\pi}{6}, \frac{7\pi}{6}$
b)	$\frac{\pi}{6}, \frac{5\pi}{6}$
c)	$0, \pi, 2\pi$
d)	$\frac{\pi}{2}, \frac{3\pi}{2}$
e)	$\frac{5\pi}{4}, \frac{7\pi}{4}$
f)	$\frac{\pi}{4}, \frac{5\pi}{4}$

the following equations. $0 \le x \le 2\pi$.

For #11 use the quadratic formula and round answers to 4 decimal places.

11) $\cos^2 x + 2\cos x - 2 = 0$

12) $2\sin x = \csc x$

13) $\sin 2x = \cos x$

14) $\cos 2x = \sin x$

Simplify problems 15 – 18:

15) $\dfrac{\sec x + 1}{\sin^2 x \sec x}$

16) $\sec x \csc x - \tan x$

17) $\dfrac{\sin t \cos t}{1 - \cos^2 t}$

18) $\dfrac{\cos\theta}{1+\sin\theta} + \tan\theta$

Problems 19-22: Find a,b,c,d and period. Then graph:

19) $y = -\sin 2x - 1$

20) $y = 3\cos(2x - \pi) + 2$

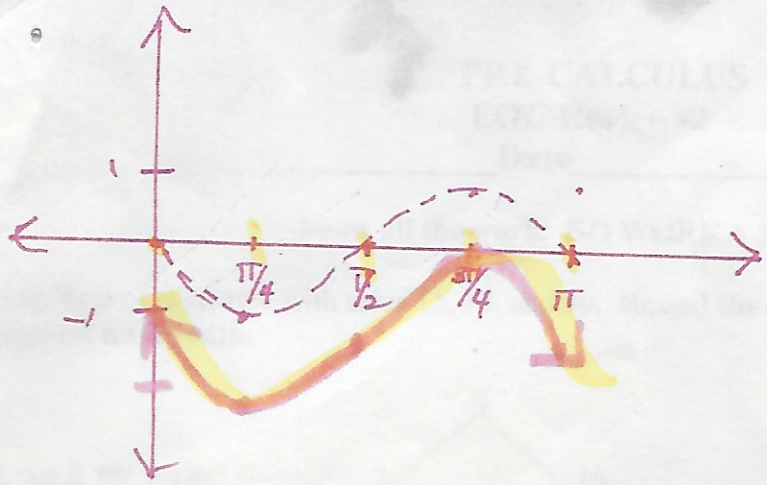
21) $y = \dfrac{1}{2}\sin x + 3$

22) $y = -2\sin 2x$

(Graphs on separate graph paper. Label the axis correctly).

11) $x \approx 0.7495$ or 5.5337
12) $\frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$
13) $\frac{\pi}{2}, \frac{3\pi}{2}, \frac{\pi}{6}, \frac{5\pi}{6}$
14) $\frac{\pi}{6}, \frac{5\pi}{6}, \frac{3\pi}{2}$
15) $\frac{1}{1-\cos x}$
16) $\cot x$
17) $\cot t$
18) $\sec\theta$
amp= 1 19) a= -1 b= 2 c= 0 d= -1 per= π
amp= 3 20) a= 3 b= 2 c= $\frac{\pi}{2}$ d= 2 per= π
amp= $\frac{1}{2}$ 21) a= $\frac{1}{2}$ b= 1 c= 0 d= 3 per= 2π
amp= 2 22) a= -2 b= 2 c= 0 d= 0 per= π

FR-4
GRAPHS



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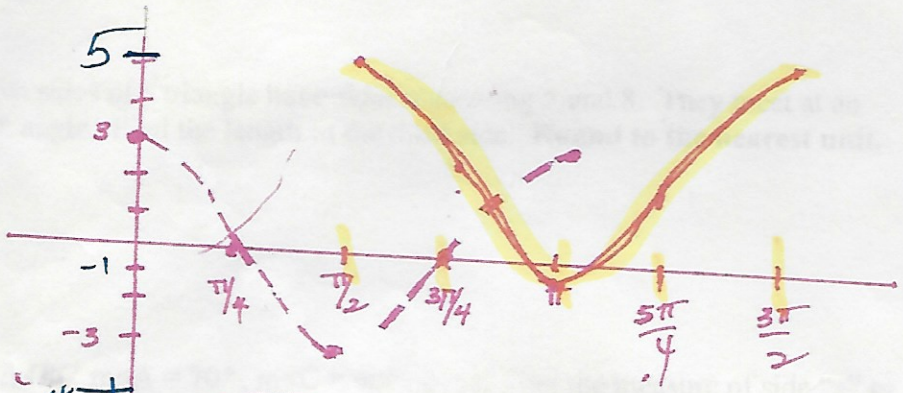

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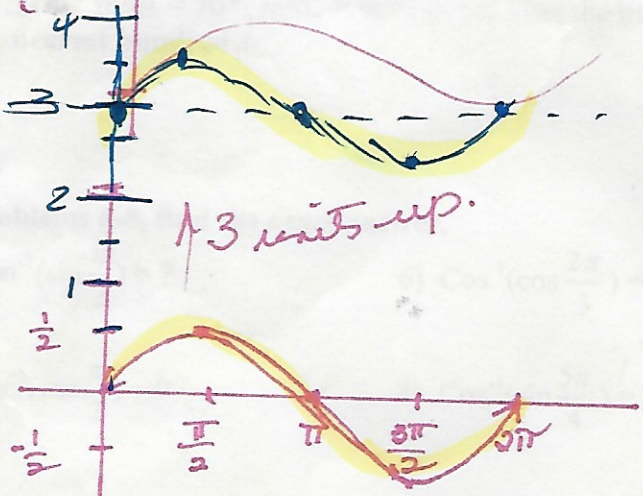

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