ALG2B
Final Exam Review

TRIG REVIEW

1. $\frac{200}{1}\cdot\frac{\pi}{180}=\frac{200\pi}{180}=\frac{10\pi}{9}$ 2. $\frac{260}{1}\cdot\frac{\pi}{180}=\frac{260\pi}{180}=\frac{13\pi}{9}$

3. $\frac{2\pi}{3}\cdot\frac{180}{\pi}=\frac{360\pi}{3\pi}=120°$ 4. $\frac{6\pi}{5}\cdot\frac{180}{\pi}=\frac{1080\pi}{5\pi}=216°$

5. $A=r\theta$ $A=\frac{5}{1}\cdot\frac{2\pi}{5}=\frac{10\pi}{5}=2\pi\approx 6.3m$ 6. $b=4$ (# of cycles from $0-2\pi$)
so $P=2\pi/4=\pi/2$

7. amp $=2$ $\left(\frac{2--2}{2}\right)=\frac{4}{2}=2$ 8. $y=-4\sin 6x$
$amp=|a|=|-4|=4$
$P=\frac{2\pi}{6}=\pi/3$

9. $P=$ one cycle $=\pi/2$
$b=\frac{2\pi}{\pi/2}=\frac{2\pi}{1}\cdot\frac{2}{\pi}=4$
$a=3$ $y=3\sin 4\theta$

10. $b=2$ (# of cycles from $0-2\pi$)
$a=1$
$y=1\cos 2\theta$

11. $\sin 63°=\frac{x}{8}$ $\left(\sin=\frac{opp}{hyp}\right)$
$8\cdot\sin 63°=\frac{x}{8}\cdot 8$
$x=8\sin 63°$ (exact ans)
$x\approx 7.1$

12. $\cos 25=\frac{x}{87}$ $\left(\cos=\frac{adj}{hyp}\right)$
$87\cdot\cos 25=\frac{x}{87}\cdot 87$
$x=87\cos 25$ (exact ans)
$x\approx 78.8$

* On 13+14, you could you sin, cos or tan since all sides given

13. ~~cos~~ $\sin x=\frac{49.9}{62.9}$ $\frac{opp}{hyp}$
$\sin^{-1}(\sin x)=\sin^{-1}(49.9/62.9)$
$x=\sin^{-1}(49.9/62.9)$ (exact ans)
$x\approx 52.5°$

14. $\sin x=\frac{58.3}{72.7}$
$\sin^{-1}(\sin x)=\sin^{-1}(58.3/72.7)$
$x=\sin^{-1}(58.3/72.7)$
$x\approx 53.3°$