Pre-Calculus 1 Assignment 151 Wednesday, January 6, 2016 Hour Name

Non-Calculator

Exer. 1-8: Write the expression as the sine, cosine, or tangent of an angle.

1. $\cos 60° \cos 20° - \sin 60° \sin 20°$

2. $\sin 110° \cos 80° + \cos 110° \sin 80°$

3. $\frac{\tan 325° - \tan 86°}{1 + \tan 325° \tan 86°}$

4. $\frac{\tan 154° - \tan 49°}{1 + \tan 154° \tan 49°}$

5. $\sin 3.5 \cos 1.2 - \cos 3.5 \sin 1.2$

6. $\cos 0.96 \cos 0.42 + \sin 0.96 \sin 0.42$

7. $\cos \frac{\pi}{9} \cos \frac{\pi}{7} - \sin \frac{\pi}{9} \sin \frac{\pi}{7}$

8. $\sin \frac{4\pi}{9} \cos \frac{\pi}{8} + \cos \frac{4\pi}{9} \sin \frac{\pi}{8}$

Exer. 9-12: Find the exact value of the trigonometric function given that $\sin u = -\frac{8}{17}$ and $\cos v = -\frac{4}{5}$. (Both u and v are in Quadrant III.)

9. $\cos(u + v)$

10. $\tan(u + v)$

11. $\sin(v - u)$

12. $\cos(u - v)$

Exer. 13-16: Use right triangles to evaluate the expression.

13. $\sin\left(\cos^{-1}\frac{3}{5} - \sin^{-1}\frac{5}{13}\right)$

14. $\cos\left(\sin^{-1}\frac{12}{13} - \cos^{-1}\frac{8}{17}\right)$

15. $\sin\left(\tan^{-1}\frac{3}{4} + \sin^{-1}\frac{3}{5}\right)$

16. $\tan\left(\sin^{-1}\frac{4}{5} - \cos^{-1}\frac{5}{13}\right)$