Quiz 6

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Name: _____

1. Calculate
   (a) $\cos 105^\circ$.

   (b) $\tan \frac{4\pi}{3}$.

   (c) $\cos^{-1}\left(\cos \frac{8\pi}{9}\right)$.

   (d) $\sin\left(\sin^{-1}\frac{1}{3} - \cos^{-1}\frac{4}{5}\right)$.

2. Verify the identity

$$\frac{1}{1+\cos x}+\frac{1}{1-\cos x}=2+2\,\cot^2 x.$$

3. Find all solutions in the interval $[0, 2\,\pi)$:

$$2\,\cos^2 x+\cos x-1=0.$$

4. Graph a full cycle of $y=3\,\sin\left(2\,x-\frac{\pi}{3}\right)$.