

Write as a single trig function of a single angle.

1.  $\sqrt{\frac{1 - \cos(80^\circ)}{2}}$

2.  $\cos^2\left(\frac{2\pi}{7}\right) - \sin^2\left(\frac{2\pi}{7}\right)$

3.  $\sqrt{\frac{1 + \cos(100^\circ)}{2}}$

4.  $\frac{2\tan(35^\circ)}{1 - \tan^2(35^\circ)}$

5.  $\frac{1 - \cos 98^\circ}{\sin 98^\circ}$

6.  $2\sin\left(\frac{\pi}{5}\right)\cos\left(\frac{\pi}{5}\right)$

7.  $2\cos^2\left(\frac{2\pi}{5}\right) - 1$

8.  $1 - 2\sin^2\left(\frac{\pi}{8}\right)$