$$\sin(\pi/8) = \frac{\sqrt{2-\sqrt{2}}}{2}$$

on sait que $\sin^2(\pi/8) + \cos^2(\pi/8) = 1$

Donc $\cos^2(\pi/8) = 1 - \sin^2(\pi/8) = 1 - \frac{(2-\sqrt{2})}{4} = \frac{4-2+\sqrt{2}}{4} = \frac{2+\sqrt{2}}{4}$

$$\Rightarrow \boxed{\cos(\pi/8) = \frac{\sqrt{2+\sqrt{2}}}{2}}$$