$$\cos\theta = \frac{\cos\gamma - \cos\alpha\cos\beta}{\sin\alpha\sin\beta}$$

$$\cos\theta = \frac{\cos 38° - \cos 40°\cos 45°}{\sin 40°\sin 45°}$$

$$\theta = 57.18°$$

$$\cos\theta = \frac{FC}{PC} = \frac{FC}{\sin\alpha}$$

$$\sin\beta = \frac{FG}{FC} \implies FC = \frac{FG}{\sin\beta} = \frac{ED}{\sin\beta} = \frac{OD - OE}{\sin\beta}$$

$$= \frac{\cos\gamma - OC\cos\beta}{\sin\beta}$$

$$= \frac{\cos\gamma - \cos\alpha\cos\beta}{\sin\beta}$$

$$\therefore \boxed{\cos\theta = \frac{\cos\gamma - \cos\alpha\cos\beta}{\sin\alpha\sin\beta}}$$