

2.53
E7

$$\sin \gamma = \sin(\alpha - \beta) - 2 \cos(\beta + \gamma) \sin(\alpha + \gamma)$$

$$\alpha + \beta + \gamma = 180$$

$$\sin(\alpha + \beta) = \sin(\alpha - \beta) - 2 \cos(180 - \alpha) \sin(180 - \beta)$$

$$= \sin(\alpha - \beta) + 2 \cos \alpha \sin \beta$$

$$= \sin(\alpha - \beta) + \sin(\beta + \alpha) + \sin(\alpha - \beta)$$

$$\sin \gamma = \sin(\beta + \alpha)$$