**Zadatak 24.** Ako je $\cos\alpha = 0.6$, $\frac{3\pi}{2} < \alpha < 2\pi$, $\sin\beta = -\frac{40}{41}$, $\pi < \beta < \frac{3\pi}{2}$, koliko je $\operatorname{ctg}(\alpha - \beta)$?

***Rješenje.*** $\frac{3\pi}{2} < \alpha < 2\pi$, $\pi < \beta < \frac{3\pi}{2}$;

$$\sin\alpha = -\sqrt{1-\cos^2\alpha} = -\sqrt{1-0.36} = -\sqrt{0.64} = -0.8$$

$$\cos\beta = -\sqrt{1-\sin^2\beta} = -\sqrt{1-\frac{1600}{1681}} = -\sqrt{\frac{81}{1681}} = -\frac{9}{41}$$

$$\operatorname{ctg}\alpha = \frac{\cos\alpha}{\sin\alpha} = \frac{0.6}{-0.8} = -\frac{6}{8} = -\frac{3}{4}$$

$$\operatorname{ctg}\beta = \frac{\cos\beta}{\sin\beta} = \frac{-\frac{9}{41}}{-\frac{40}{41}} = \frac{9}{41}$$

$$\operatorname{ctg}(\alpha-\beta) = \frac{\operatorname{ctg}\alpha\cdot\operatorname{ctg}\beta+1}{\operatorname{ctg}\beta-\operatorname{ctg}\alpha} = \frac{-\frac{3}{4}\cdot\frac{9}{40}+1}{\frac{9}{40}-\left(-\frac{3}{4}\right)} = \frac{\frac{133}{160}}{\frac{39}{40}} = \frac{133}{156}.$$