Úloha 97

Podmínky řešitelnosti:

$$\left[\left(\alpha<\frac{\pi}{2}\right)\wedge\left(\left|\frac{1}{3}t_c-\frac{t_b}{12\sin\alpha}\sqrt{16\sin^2\alpha+9}\right|\le\frac{t_b}{4\sin\alpha}\right)\right]\vee\left[\left(\alpha\ge\frac{\pi}{2}\right)\wedge\left(\frac{1}{6}t_b<\frac{1}{3}t_c<\frac{2}{3}t_b\right)\right]$$

Počet řešení:

1, je-li

$$\left[\left(\alpha<\frac{\pi}{2}\right)\wedge\left(\frac{1}{3}t_c=\frac{t_b}{12\sin\alpha}\sqrt{16\sin^2\alpha+9}\pm\frac{t_b}{4\sin\alpha}\right)\right]\vee\left[\left(\alpha\ge\frac{\pi}{2}\right)\wedge\left(\frac{1}{6}t_b<\frac{1}{3}t_c<\frac{2}{3}t_b\right)\right]$$

2, je-li $\left[\left(\alpha<\frac{\pi}{2}\right)\wedge\left(\left|\frac{1}{3}t_c-\frac{t_b}{12\sin\alpha}\sqrt{16\sin^2\alpha+9}\right|<\frac{t_b}{4\sin\alpha}\right)\right]$