

Úloha 38

Podmínky řešitelnosti:

$$\left(r \geq \frac{a}{2}\right) \wedge \left(v_a \leq r + \sqrt{r^2 - \left(\frac{a}{2}\right)^2}\right)$$

Počet řešení:

1, je-li $\left(r \geq \frac{a}{2}\right) \wedge \left(v_a = r + \sqrt{r^2 - \left(\frac{a}{2}\right)^2}\right)$

2, je-li $\left[\left(r > \frac{a}{2}\right) \wedge \left(r - \sqrt{r^2 - \left(\frac{a}{2}\right)^2} < v_a < r + \sqrt{r^2 - \left(\frac{a}{2}\right)^2}\right)\right] \vee \left[\left(r = \frac{a}{2}\right) \wedge (v_a < r)\right]$

3, je-li $\left(r > \frac{a}{2}\right) \wedge \left(v_a = r - \sqrt{r^2 - \left(\frac{a}{2}\right)^2}\right)$

4, je-li $\left(r > \frac{a}{2}\right) \wedge \left(v_a < r - \sqrt{r^2 - \left(\frac{a}{2}\right)^2}\right)$