

$$\sin x \cdot \operatorname{ctg} y = \sqrt{6}/2$$
$$\operatorname{tg} x \cdot \cos y = \sqrt{3}/2$$

$$\sqrt{3} \cos x = \sqrt{6} \sin y$$

$$\operatorname{ctg} y = \sqrt{6}/2 \sin x$$

$$\cos y = \sqrt{3}/2 \operatorname{tg} x$$

$$\operatorname{ctg}^2 y = 6/4 \sin^2 x$$

$$\cos^2 y = 3/4 \operatorname{tg}^2 x$$

$$1/\cos^2 y = 1 + \operatorname{tg}^2 y$$

$$4 \operatorname{tg}^2 x / 3 = 1 + 4 \sin^2 x / 6$$

$$8 \operatorname{tg}^2 x - 4 / (1 + \operatorname{ctg}^2 x) - 6 = 0$$

$$\operatorname{tg} x = a$$

$$8a^2 - 4 / (1 + 1/a^2) - 6 = 0$$

$$8a^2 + 8 - 4 - 6 - 6/a^2 = 0$$

$$8a^2 - 2 - 6/a^2 = 0$$

$$4a^2 - 1 - 3/a^2 = 0 \quad | \cdot a^2$$

$$4a^4 - a^2 - 3 = 0$$

$$a^2 = t$$

$$D = 1 + 48 = 7^2$$

$$t_1 = (1 - 7) / 8 = -3$$

$$A^2 = -3 \quad \text{-- error}$$

$$t_2 = (1 + 7) / 8 = 1$$

$$a^2 = 1$$

$$a = -1, 1$$

$$\operatorname{tg} x = 1$$

$$x = P/4 + Pk$$

$$\cos y = \sqrt{3}/2$$

$$y = \pm P/6 + 2Pk$$

$$\operatorname{tg} x = -1$$

$$x = -P/4 + Pk$$

$$\cos y = -\sqrt{3}/2$$

$$y = \pm 5P/6 + 2Pk$$

Ответ  $(P/4 + Pk; \pm P/6 + 2Pk)$   $(-P/4 + Pk; \pm 5P/6 + 2Pk)$