

« = -9: »

. - 2013. - .2, .1. - . 339-341

, / - ( >0, 1) -

, =(1,0). =( , )

/ = ,  $x^2 + y^2 = \kappa^2((x-1)^2 + y^2)$ .

$\left(-\frac{\kappa^2}{1-\kappa^2}, 0\right)$   $\frac{\kappa}{|1-\kappa^2|}$ .

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— = —, — = —, — = —.

1.

— = — — = —,

2.

.  $\angle = \angle = 90^\circ$ ,

=  $\sin \alpha$ . =  $\sin \beta$ , =  $\sin \gamma$

R -

$$= 2R \sin \alpha, \quad = 2R \sin \beta, \quad = 2R \sin \gamma.$$

$$\frac{\sin \alpha}{\sin \beta} = \frac{\sin \alpha}{\sin \beta} = \frac{2R \sin \beta \cdot \sin \alpha}{2R \sin \alpha \cdot \sin \beta} = 1.$$

$$= 1.$$

$$1 \quad 1 \quad 1, \quad 1 \quad 1$$

P Q -

$$\varphi_1 = \angle \quad = \angle \quad = \angle, \quad \varphi_2 = \angle QAB = \angle QCA = \angle QBC$$

$$\varphi_1 = \varphi_2, \quad 1$$

$$\angle \quad = \beta + \gamma = 180^\circ - \alpha,$$

. K L - 1

, ( K ).

$$= \quad 1L \quad :$$

$$ctg \varphi_1 = \frac{AL}{A_1L} = \frac{AK}{BK} + \frac{CL}{A_1L} + \frac{CK}{BK} = ctg \alpha + ctg \beta + ctg \gamma.$$

$\varphi_1$ , ,

$$90^\circ - ,$$

$$ctg \varphi_1 \varphi_1 .$$

$$, \quad \varphi_1 = \varphi_2 .$$

$$\varphi = \varphi_1 = \varphi_2$$

.  $\varphi$  :

$$\sin^3 \varphi = \sin(\alpha - \varphi)\sin(\beta - \varphi)\sin(\gamma - \varphi) .$$

, ,

$$\frac{\sin \varphi}{\sin(\alpha - \varphi)}$$

$$\frac{\sin \varphi}{\sin(\beta - \varphi)}$$

$$\frac{\sin \varphi}{\sin(\gamma - \varphi)}$$

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