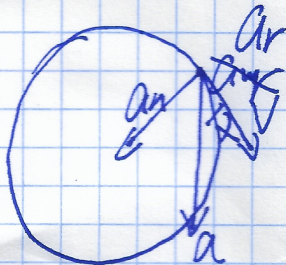


5.



$$\operatorname{tg} 2 = \frac{a_n}{a_r}$$

$$a_n = \frac{v^2}{r}$$

$$a_r = \frac{dv}{dt}$$

Линейная скорость

$$v = \omega r$$

$$\omega = \varepsilon t$$

$$\Rightarrow v = \varepsilon r t$$

$$a_n = \varepsilon^2 r t^2$$

$$a_r = \frac{\varepsilon^2 r t^2}{t} = \varepsilon r$$

$$\operatorname{tg} 2 = \frac{\varepsilon^2 r t^2}{\varepsilon r} = \varepsilon t^2 = \sqrt{3} \Rightarrow \varepsilon = \frac{\sqrt{3}}{4} \text{ рад/с}^2$$