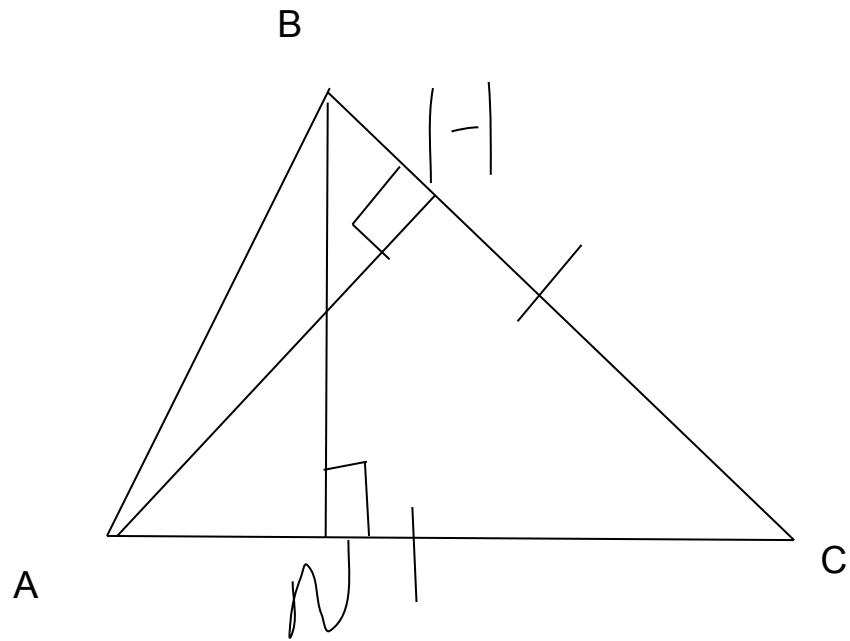


В треугольнике  $ABC$   $AC = BC$ ,  $AH$  — высота,  $\operatorname{tg} BAC = \frac{24}{7}$ . Найдите  $\sin BAH$ .



$\sin BAH = ?$

$$\operatorname{tg} BAC = \frac{24}{7} = \frac{BN1}{AN1}$$

$$BN1 = AH; \quad BH = AN1$$

$$1 + \operatorname{tg}^2 BAC = \frac{1}{\cos^2 BAC} = \frac{1}{\sin^2 BAH}$$

$$1 + \left(\frac{24}{7}\right)^2 = \frac{1}{\sin^2 BAH}$$

$$\sin^2 BAH = \frac{1}{1 + \left(\frac{24}{7}\right)^2} = 0.0784$$

$$\sin BAH = 0.28$$

**Ответ: 0.28**

$$\begin{aligned} 1 + \operatorname{tg}^2 x &= 1 + \frac{\sin^2 x}{\cos^2 x} = \\ &= \frac{\cos^2 x + \sin^2 x}{\cos^2 x} = \\ &= \frac{1}{\cos^2 x} \end{aligned}$$