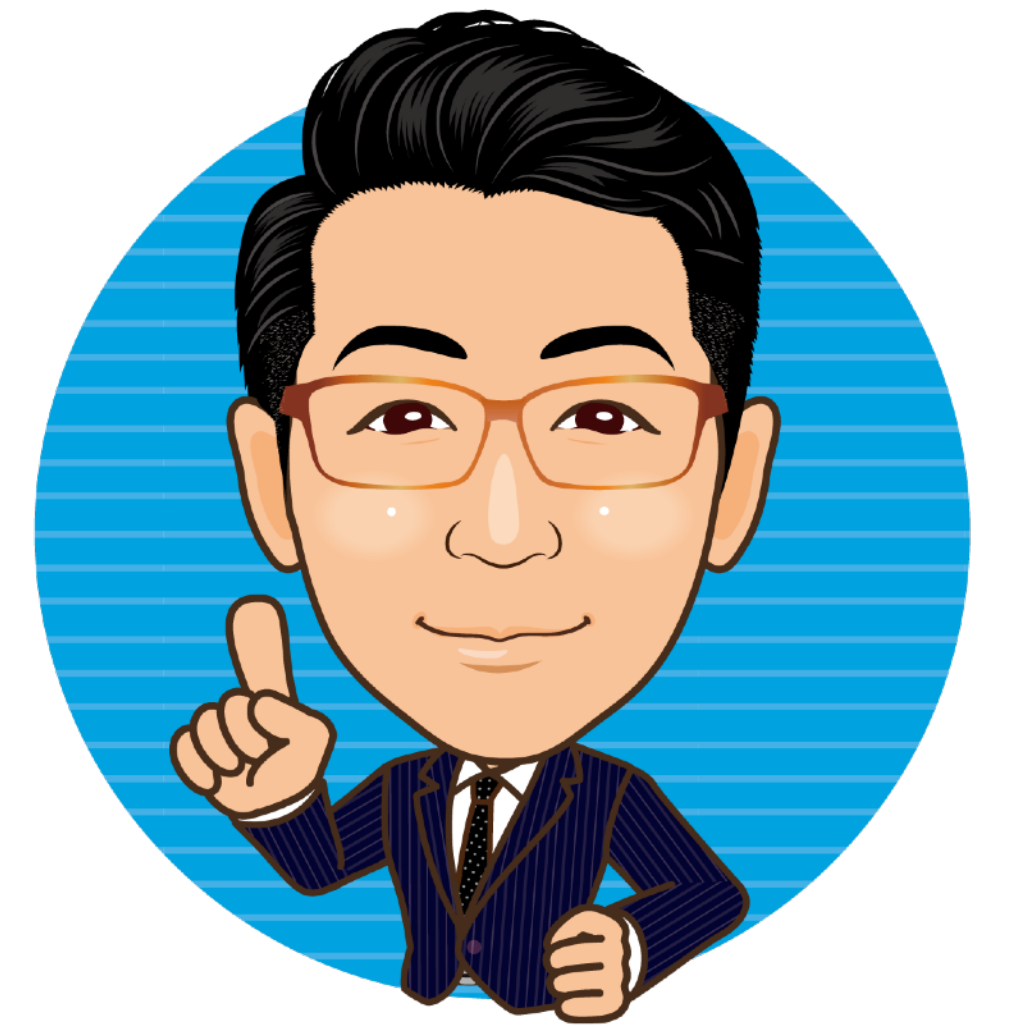


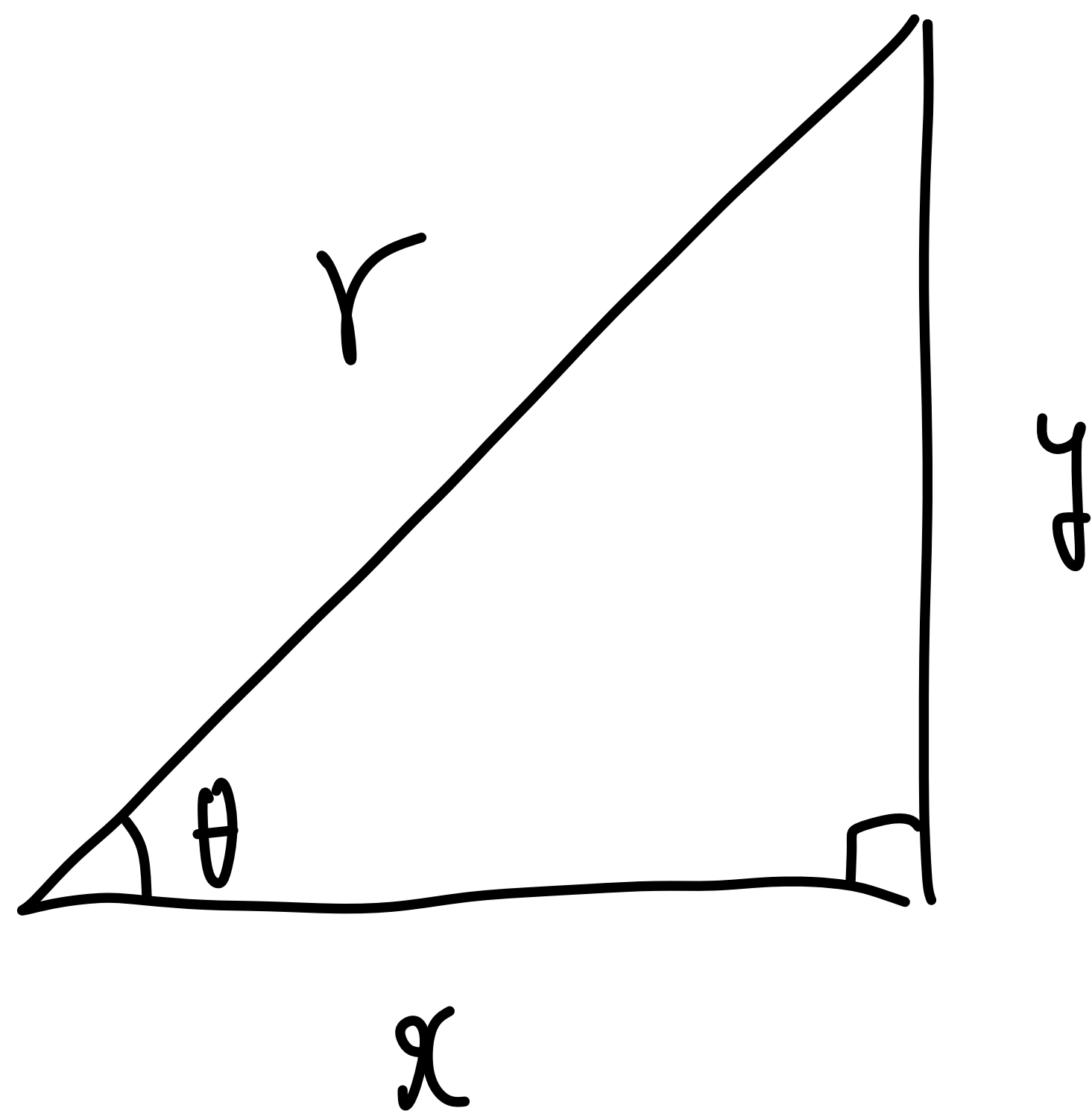


数学I

第4章 図形と計量

三角比の相互関係①





$$\sin \theta = \frac{y}{r}, \cos \theta = \frac{x}{r}, \tan \theta = \frac{y}{x}$$

< 三平方定理 >

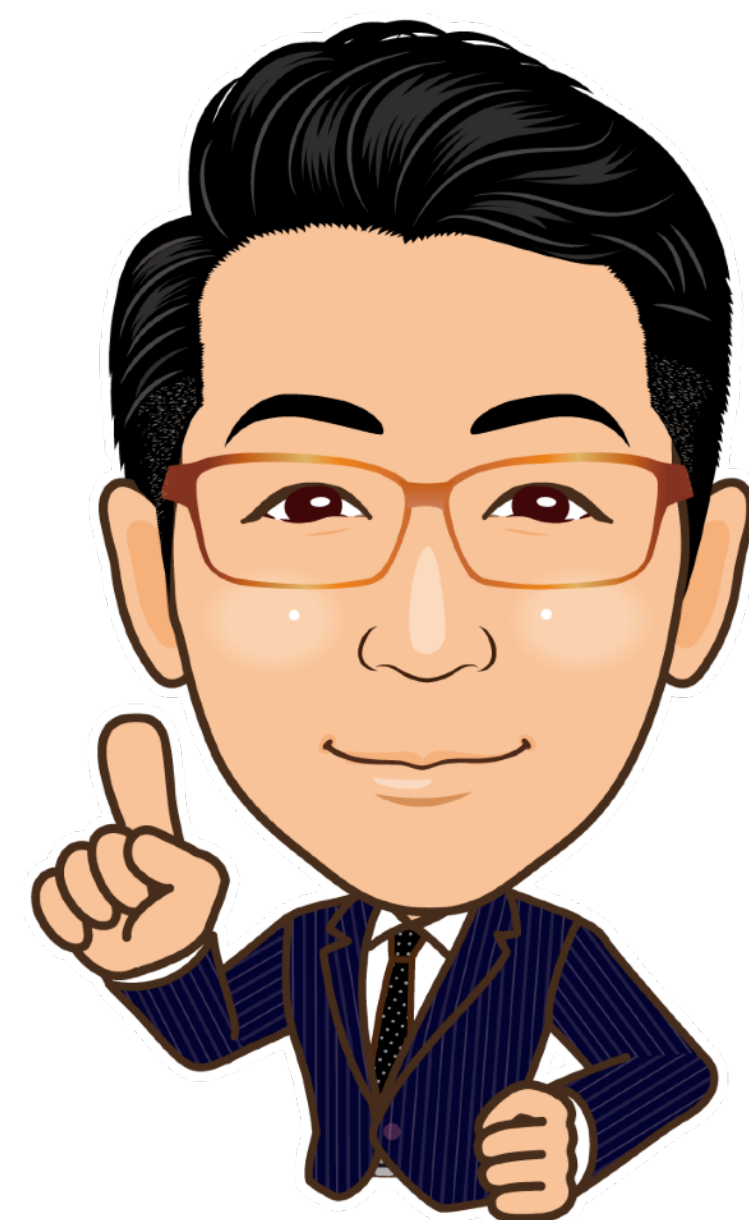
$$x^2 + y^2 = r^2$$

$$x^2 + y^2 = r^2 \quad (r \neq 0)$$

$$\frac{x^2}{r^2} + \frac{y^2}{r^2} = 1$$

$$\left(\frac{x}{r}\right)^2 + \left(\frac{y}{r}\right)^2 = 1$$

$$\cos^2 \theta + \sin^2 \theta = 1$$



$$\tan \theta = \frac{y}{x}$$

$$= \frac{\frac{y}{r}}{\frac{x}{r}} = \frac{\sin \theta}{\cos \theta}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$



< 重要 >

① $\sin^2 \theta + \cos^2 \theta = 1$

② $\tan \theta = \frac{\sin \theta}{\cos \theta}$

③ $\tan^2 \theta + 1 = \frac{1}{\cos^2 \theta}$

~~重要~~ < !!

