

삼각함수의 기본공식

(Basic formula for trigonometric functions)

Basic formula for trigonometric functions

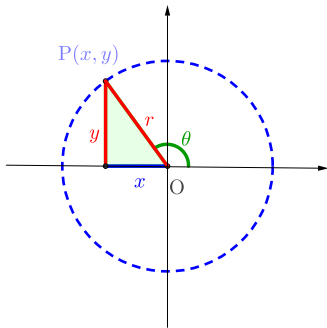
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Basic formula for trigonometric functions

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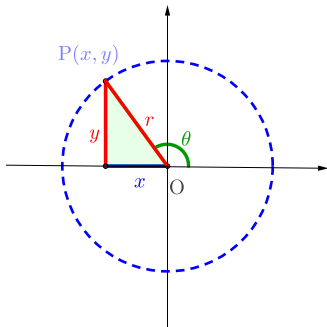


Basic formula for trigonometric functions

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

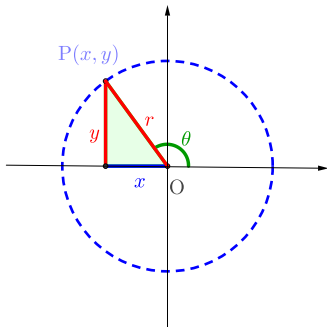


Basic formula for trigonometric functions

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

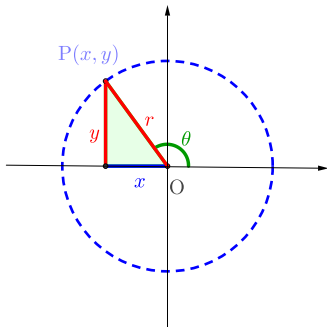


Basic formula for trigonometric functions

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

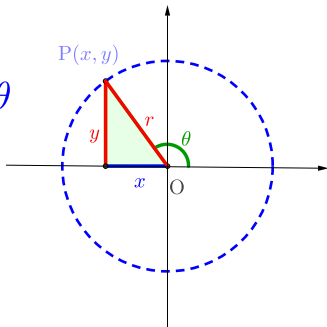


Basic formula for trigonometric functions

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

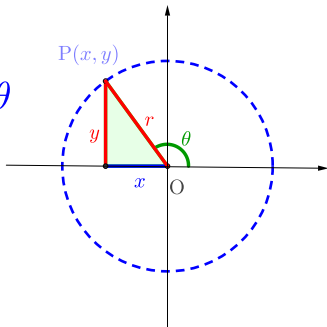


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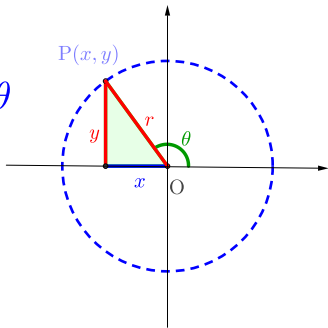
$$\frac{\sin \theta}{\cos \theta} = \frac{\frac{y}{r}}{\frac{x}{r}} = \frac{y}{x} = \tan \theta$$
$$\sin^2 \theta + \cos^2 \theta$$



Basic formula for trigonometric functions

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

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



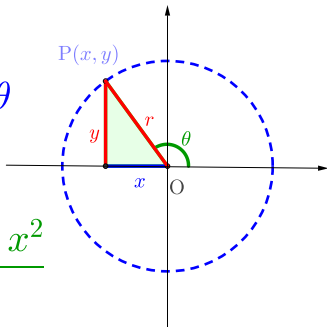
Basic formula for trigonometric functions

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

$$\begin{aligned} \sin^2 \theta + \cos^2 \theta \\ = \left(\frac{y}{r}\right)^2 + \left(\frac{x}{r}\right)^2 = \frac{y^2 + x^2}{r^2} \end{aligned}$$



Basic formula for trigonometric functions

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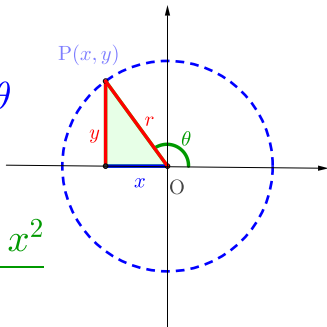
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$$\frac{\sin \theta}{\cos \theta} = \frac{\frac{y}{r}}{\frac{x}{r}} = \frac{y}{x} = \tan \theta$$

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

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

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



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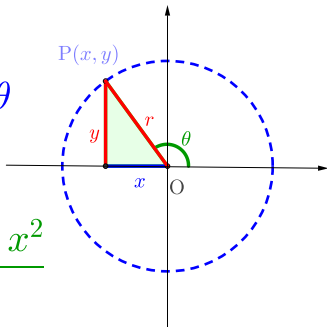
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$$\frac{\sin \theta}{\cos \theta} = \frac{\frac{y}{r}}{\frac{x}{r}} = \frac{y}{x} = \tan \theta$$

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

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

$$= \frac{r^2}{r^2} = 1$$



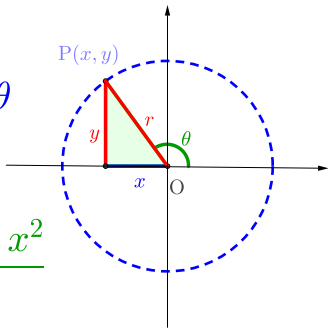
Basic formula for trigonometric functions

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

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

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

$$= \frac{r^2}{r^2} = 1 \quad \frac{\sin \theta}{\cos \theta} + 1 = \frac{1}{\cos \theta}$$



Basic formula for trigonometric functions

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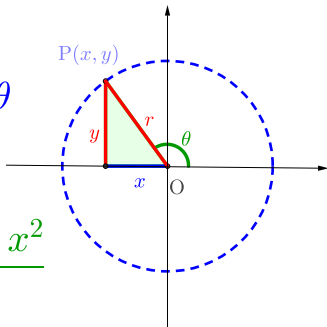
$$\frac{\sin \theta}{\cos \theta} = \frac{\frac{y}{r}}{\frac{x}{r}} = \frac{y}{x} = \tan \theta$$

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

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

$$= \frac{r^2}{r^2} = 1 \quad \frac{\sin \theta}{\cos \theta} + 1 = \frac{1}{\cos \theta}$$

$$\tan^2 \theta + 1 = \sec^2 \theta$$



Github:

<https://min7014.github.io/math20220912002.html>

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and you can see a picture moving.