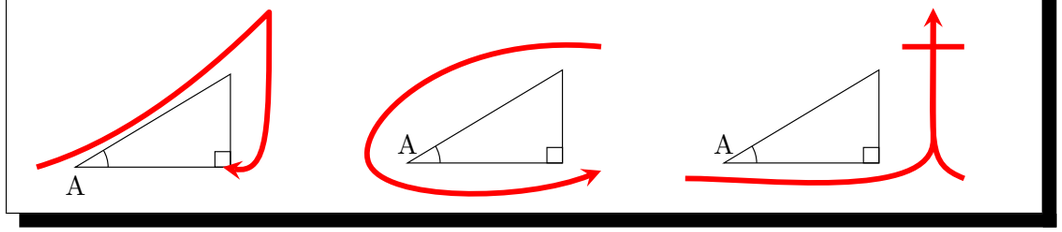
数学Ⅱ　改訂版プリント＃ 30

年　　組　　号

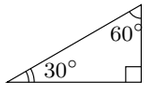
氏名

■ 一般角の三角関数

- $\sin A = \dfrac{\text{縦}}{\text{斜め}}$
- $\cos A = \dfrac{\text{横}}{\text{斜め}}$
- $\tan A = \dfrac{\text{縦}}{\text{横}}$



（復習）次の直角三角形を用いて，30°，45°，60°，120°，135°，150° の sin，cos，tan の値を求めなさい。



$\sin 30° =$ □

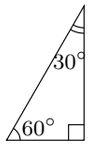
$\cos 30° =$ □

$\tan 30° =$ □

$\sin 45° =$ □

$\cos 45° =$ □

$\tan 45° =$ □

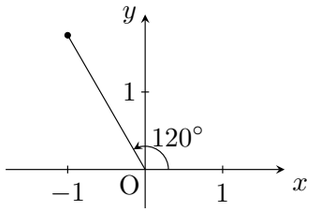


$\sin 60° =$ □

$\cos 60° =$ □

$\tan 60° =$ □

■ 120° の三角比

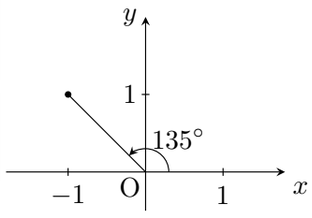


$\sin 120° =$ □

$\cos 120° =$ □

$\tan 120° =$ □

■ 135° の三角比

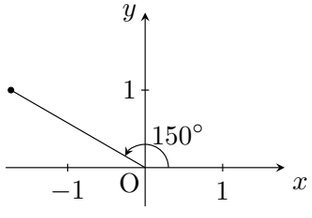


$\sin 135° =$ □

$\cos 135° =$ □

$\tan 135° =$ □

■ 150° の三角比

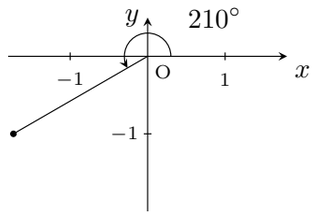


$\sin 150° =$ □

$\cos 150° =$ □

$\tan 150° =$ □

■ 210° の三角比

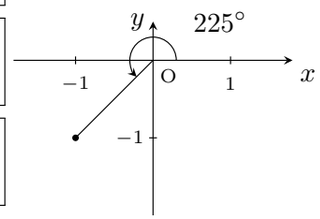


$\sin 210° =$ □

$\cos 210° =$ □

$\tan 210° =$ □

■ 225° の三角比

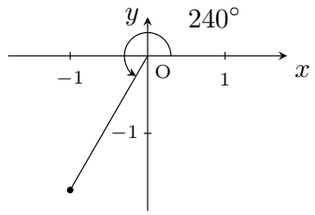


$\sin 225° =$ □

$\cos 225° =$ □

$\tan 225° =$ □

■ 240° の三角比

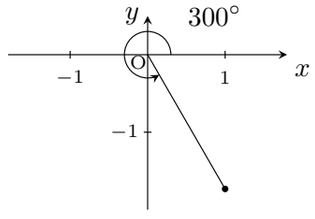


$\sin 240° =$ □

$\cos 240° =$ □

$\tan 240° =$ □

■ 300° の三角比

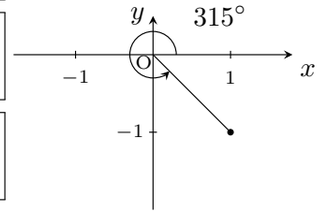


$\sin 300° =$ □

$\cos 300° =$ □

$\tan 300° =$ □

■ 315° の三角比

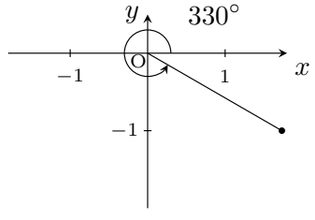


$\sin 315° =$ □

$\cos 315° =$ □

$\tan 315° =$ □

■ 330° の三角比



$\sin 330° =$ □

$\cos 330° =$ □

$\tan 330° =$ □

改訂版プリント＃31　$\dfrac{-1}{2}, \dfrac{-\sqrt{3}}{2}, \dfrac{1}{\sqrt{3}}, \dfrac{-1}{\sqrt{2}}, \dfrac{-1}{\sqrt{2}}, 1,$　$\dfrac{-\sqrt{3}}{2}, \dfrac{1}{2}, -\sqrt{3},$　$\dfrac{-1}{\sqrt{2}}, \dfrac{1}{\sqrt{2}}, -1,$　$\dfrac{-1}{2}, \dfrac{\sqrt{3}}{2}, \dfrac{-1}{\sqrt{3}}$

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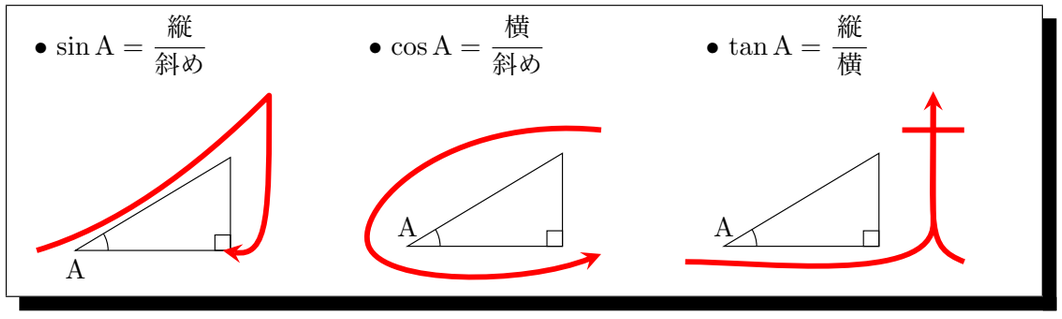
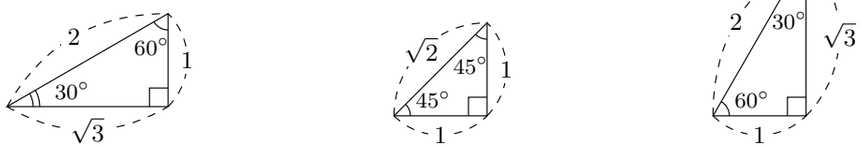
■ 一般角の三角関数

自分なりのもっと分かりやすいやり方があるなら、それでも構いません。

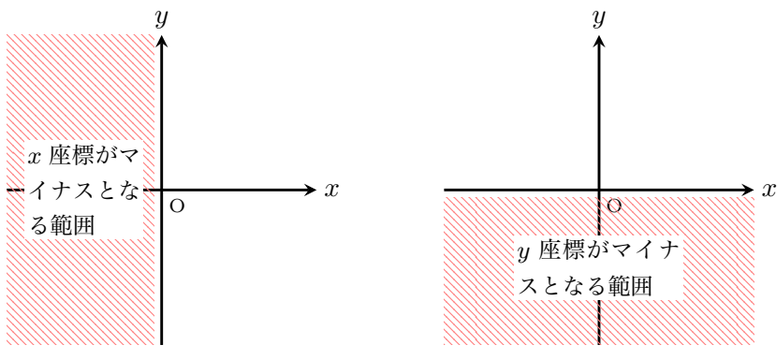




⑴ 動径の先端から x 軸に垂線をおろすと三角形ができる（必ず直角定規の三角形に関連した三角形になる）

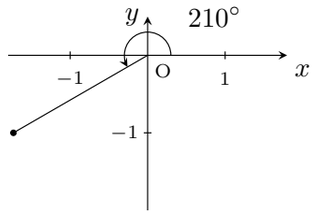
⑵ 三角形の三辺の長さを書き入れる

⑶ x 軸（横方向）、y 軸（縦方向）のマイナス部分になっているときは、辺の長さにマイナスをつける



⑷ $\sin A = \frac{縦}{斜め}$、$\cos A = \frac{横}{斜め}$、$\tan A = \frac{縦}{横}$ を使って値を求める。

■ 210° の三角比

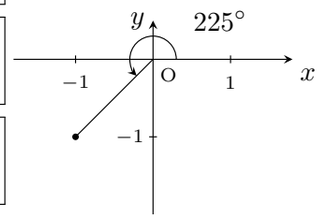


$\sin 210° =$ ☐

$\cos 210° =$ ☐

$\tan 210° =$ ☐

■ 225° の三角比

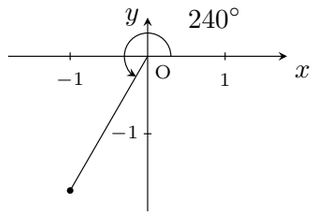


$\sin 225° =$ ☐

$\cos 225° =$ ☐

$\tan 225° =$ ☐

■ 240° の三角比

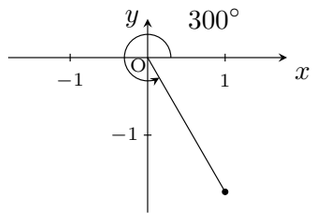


$\sin 240° =$ ☐

$\cos 240° =$ ☐

$\tan 240° =$ ☐

■ 300° の三角比

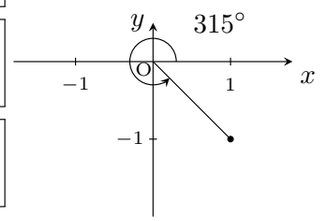


$\sin 300° =$ ☐

$\cos 300° =$ ☐

$\tan 300° =$ ☐

■ 315° の三角比

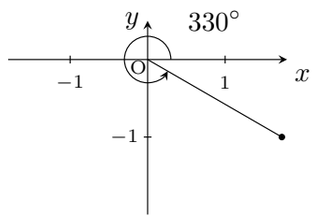


$\sin 315° =$ ☐

$\cos 315° =$ ☐

$\tan 315° =$ ☐

■ 330° の三角比



$\sin 330° =$ ☐

$\cos 330° =$ ☐

$\tan 330° =$ ☐

改訂版プリント＃30　$\sin 30° = \frac{1}{2}$, $\sin 45° = \frac{1}{\sqrt{2}}$, $\sin 60° = \frac{\sqrt{3}}{2}$, $\sin 120° = \frac{\sqrt{3}}{2}$, $\cos 120° = \frac{-1}{2}$, $\tan 120° = -\sqrt{3}$, $\frac{1}{\sqrt{2}}$, $\frac{1}{\sqrt{2}}$, -1, $\frac{1}{2}$, $\frac{-\sqrt{3}}{2}$, $\frac{1}{-\sqrt{3}}$

$\frac{-1}{2}$, $\frac{-\sqrt{3}}{2}$, $\frac{1}{\sqrt{3}}$, $\frac{-1}{\sqrt{2}}$, 1, $\frac{-\sqrt{3}}{2}$, $\frac{-1}{2}$, $\sqrt{3}$　　$\frac{-\sqrt{3}}{2}$, $\frac{1}{2}$, $-\sqrt{3}$, $\frac{-1}{\sqrt{2}}$, -1, $\frac{-1}{2}$, $\frac{\sqrt{3}}{2}$, $\frac{-1}{\sqrt{3}}$