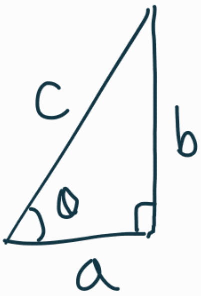
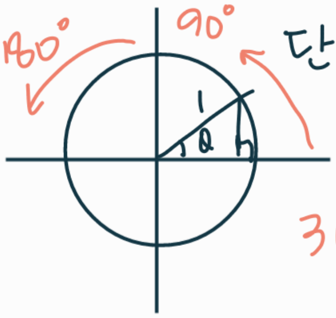


$$c^2 = a^2 + b^2$$



단위원 (Unit One)

$360° = 2\pi$ → 180°=π라는 뜻

θ = 세타 = (각도)

S = R

t = t

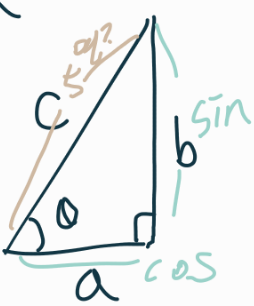
$$1 = c^2 = a^2 + b^2$$

$$\cos\theta = \frac{a}{c}\ 1$$

$$\sin\theta = \frac{b}{c}\ 1$$

$$\tan\theta = \frac{b}{a}$$

$$\tan\theta = \frac{\sin\theta}{\cos\theta} = \frac{\frac{b}{c}}{\frac{a}{c}}$$



$$(\cos a)^2 + (\sin a)^2 = 1$$

코사인제곱 쓸할

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

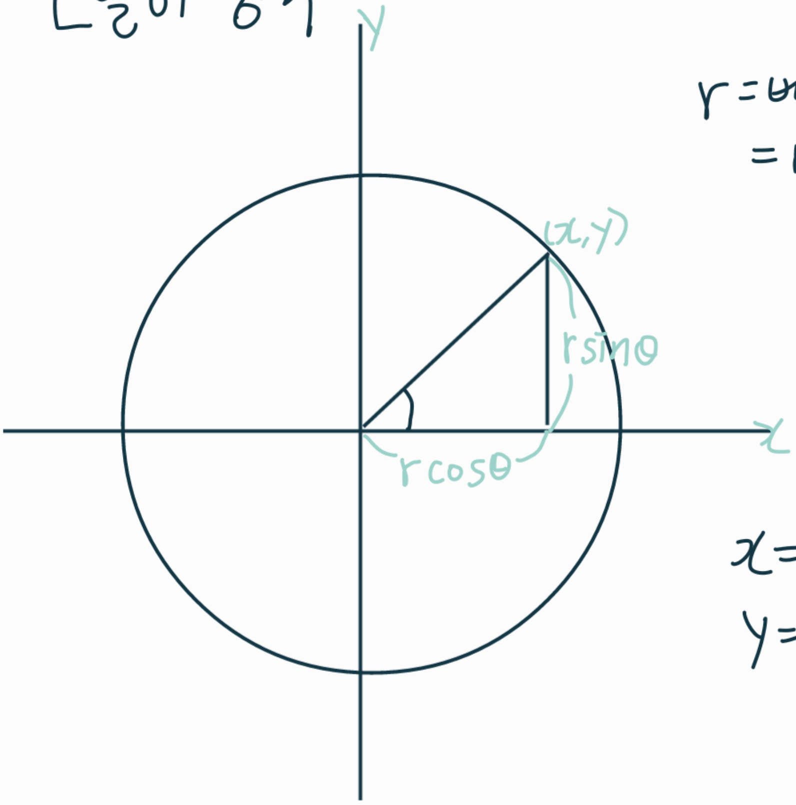
$\cos\theta\ \frac{밑변}{빗변} = \frac{1}{5}$

$\sin\theta\ \frac{높이}{빗변} = \frac{□}{5}$

$\boxed{5\sin\theta} = b$

$\boxed{5\cos\theta} = a$

오일러 공식


y
(x,y)
rsinθ
x
rcosθ

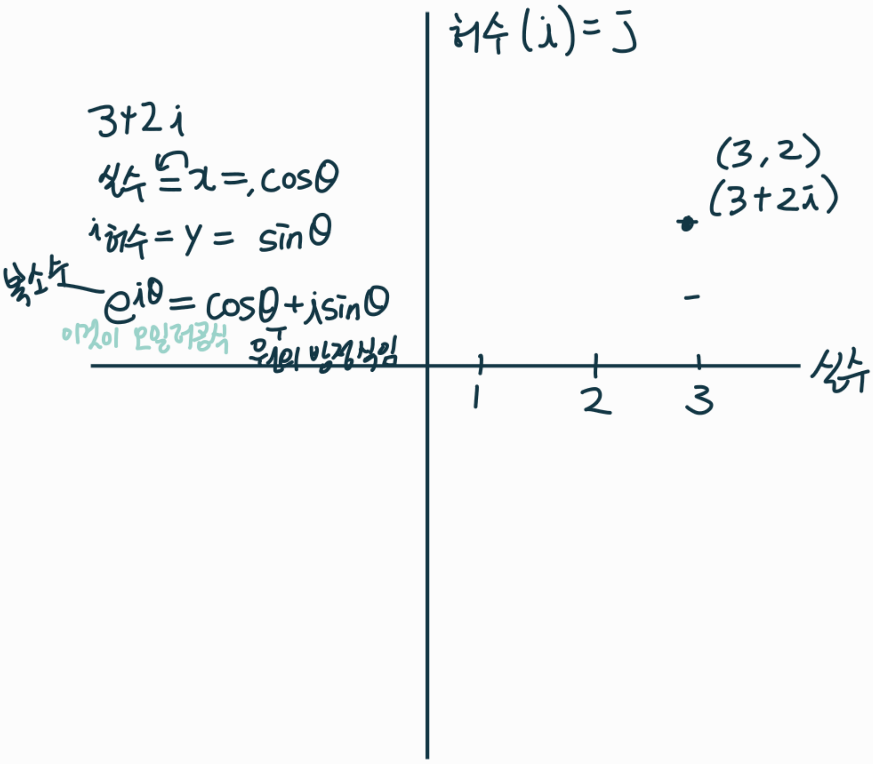
r = 반지름
= radius

$x = r\cos\theta$
$y = r\sin\theta$

$$x^2+y^2 = r^2\cos^2\theta + r^2\sin^2\theta = r^2(\cos^2\theta+\sin^2\theta) = r^2$$

원 $\xrightarrow{\text{방정식}}$ $x^2+y^2+r^2$

$x^2+y^2=9$ 면 r은 3


허수(i) = j
(3, 2)
(3+2i)
1
2
3
실수

3+2i

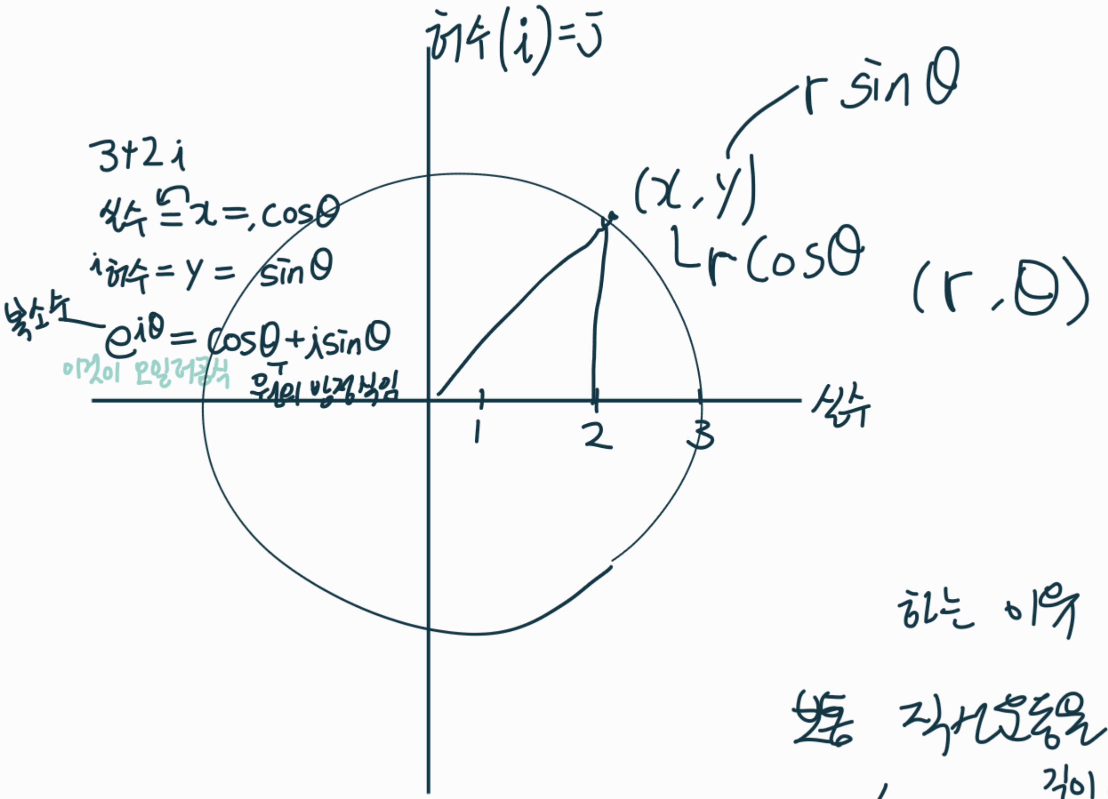
실수 = x =, cosθ

i 허수 = y = sinθ

복소수 — $e^{i\theta} = \cos\theta + i\sin\theta$

이것이 오일러공식

우리의 방정식임


허수(i) = j
r sinθ
(x, y)
r cosθ
(r, θ)
1
2
3
실수

3+2i

실수 = x =, cosθ

i 허수 = y = sinθ

복소수 — $e^{i\theta} = \cos\theta + i\sin\theta$

이것이 오일러공식

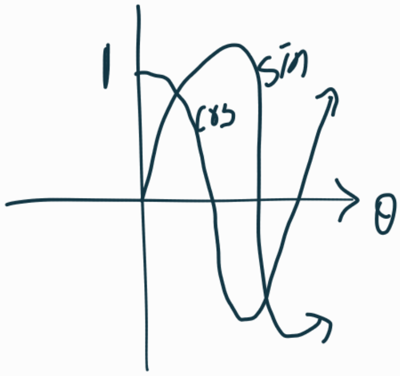
우리의 방정식임

하는 이유

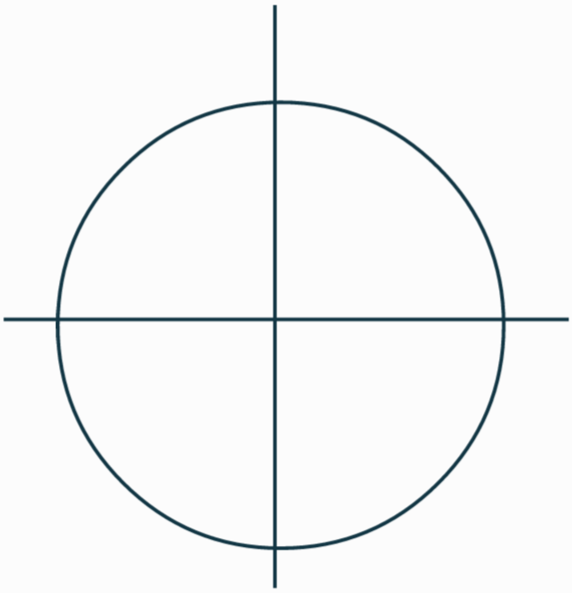
보통 직선운동을 함

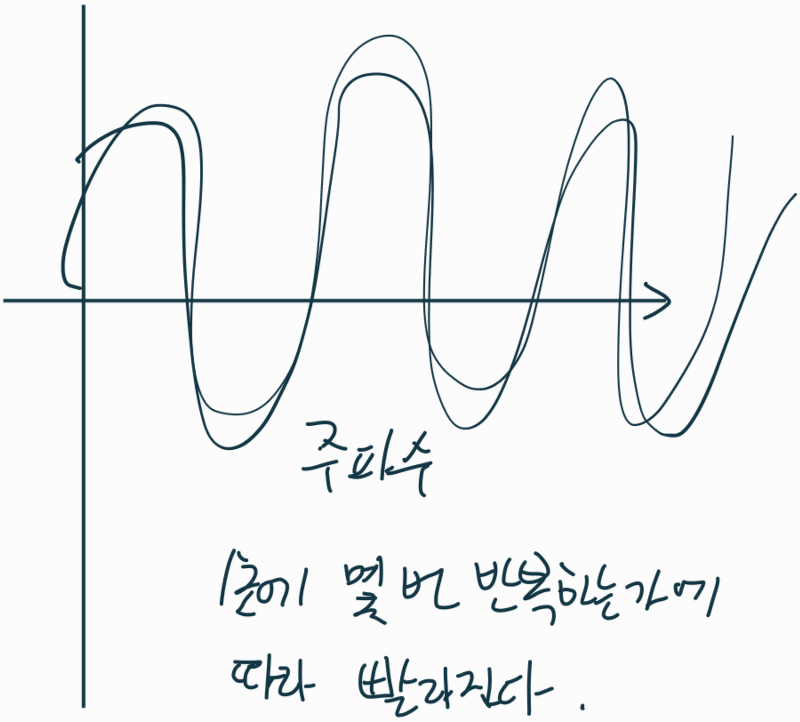
$$속도 = \frac{길이(s)}{시간(t)}$$

각속도



주기 = 2π = 360°





주파수

1초에 몇 번 반복하는가에
따라 빨라진다.