Differentiation of e^{kx}

$$\frac{d}{dx} e^{x} = e^{x}$$

$$\frac{d}{dx} e^{kx} = k e^{x}$$

Examples

$$\frac{d}{dx} e^{2x} = 2e^{2x}$$

$$\frac{d}{dt} e^{-4t} = -4e^{-4t}$$

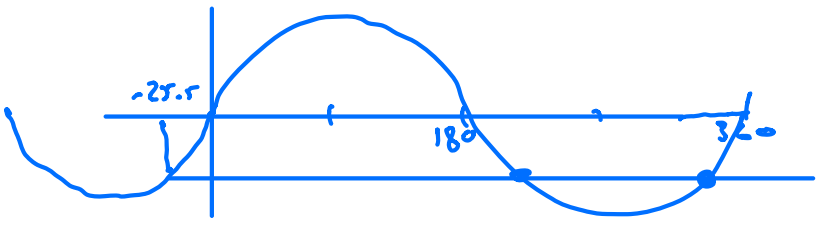
$$\frac{d}{dy} e^{-0.1y} = -0.1e^{-0.1y}$$

$$\frac{d}{dx} 2e^{3x} = 6e^{3x}$$

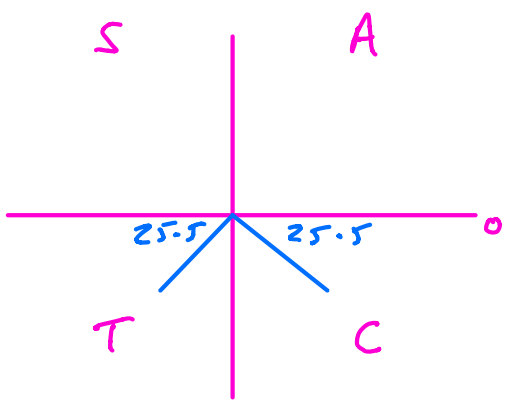
Trig $\quad \sin\theta = -0.43 \quad 0 < \theta \leq 360$

$\sin^{-1}(-0.43)$

$= -25.5°$



$\theta = 205.5° \quad \theta = 334.5°$



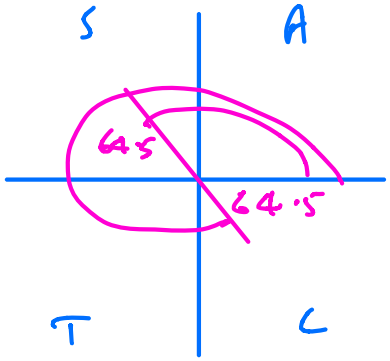
$\sin^{-1}(0.43)$

$= 25.5^\circ$

$\theta = 205.5^\circ, 334.5^\circ$

$\tan\theta = -2.1$

$\tan^{-1} 2.1 = 64.5^\circ$

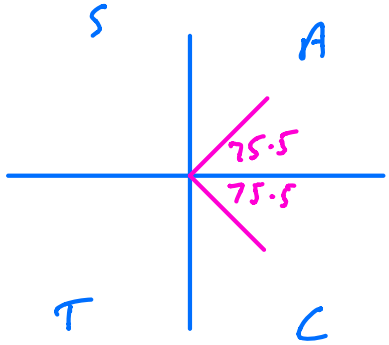


$\theta = 115.5^\circ$

$\theta = 295.5^\circ$

Ex $\cos 2\theta = 0.25$ $\quad 0 \le \theta \le 360$

$\cos^{-1} 0.25 = 75.5^\circ$



$2\theta = 75.5, 284.5, 435.5, 644.5$

$\theta = 37.8^\circ, 142.5^\circ, 217.8^\circ, 322.5^\circ$
