

Question: Give an example of a real number t for which $\cos t$ is positive and $\sin t$ is negative.

Solution: As we know $f(x) = \cos x$ is an even function ($f(-x) = f(x)$) and $g(x) = \sin x$ is an odd function ($f(x) = f(-x)$). So to solve this problem we can use real number x from $(-\frac{\pi}{2}, 0)$. For example: -1.0

$$\sin(-1.0) = -0.841470984$$

$$\cos(-1.0) = 0.5403023058$$

Answer: -1.0