**CHEAT’S WAY TO DIFFERENTIATE: *y = sin x***

***y = sin x***

Grad=0

Grad=0



Grad= – 1

Grad=1

Grad=1

Grad=0

Grad=0

2π

3π

2

π

π

2

**We find the gradients of *y = sin x***

**at *x* = – π , 0 , π , π , 3 π , 2π**

 **2 2 2**

**and plot these points on the gradient graph below…**

***yꞌ***



2π

3π

2

π

-π

 2

π

2

**Filling in the gaps between these**

**points we get the graph *yꞌ = cos x***



-π

 2

2π

3π

2

π

π

2

As long as the scales are BOTH in RADIANS, we see that

the gradient graph of ***y = sin x*** is of course ***y ꞌ = cos x***