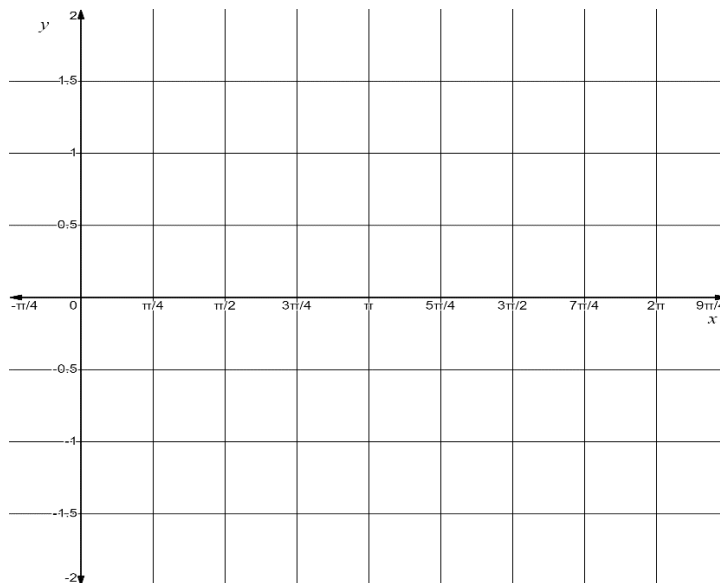
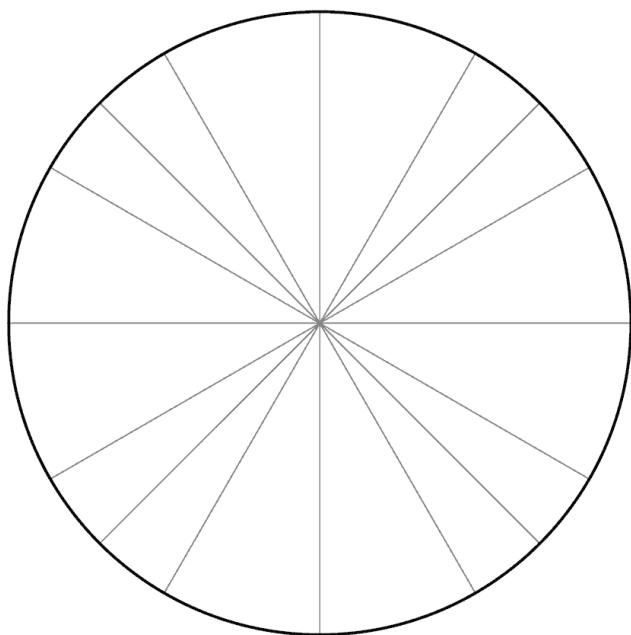


Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 3.2**

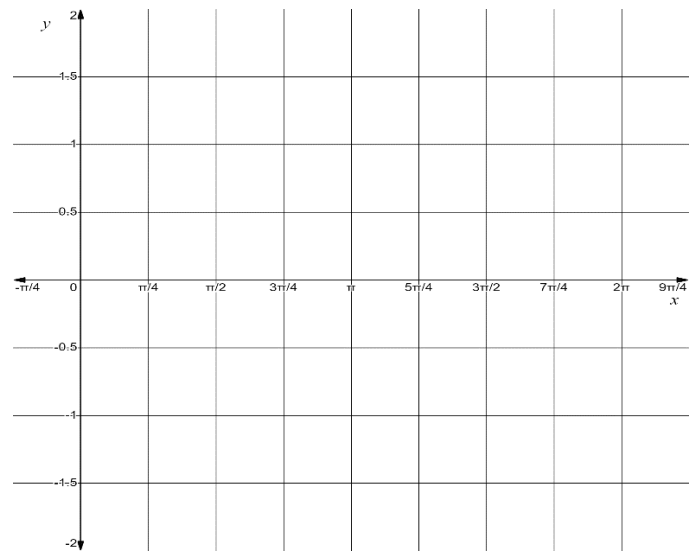
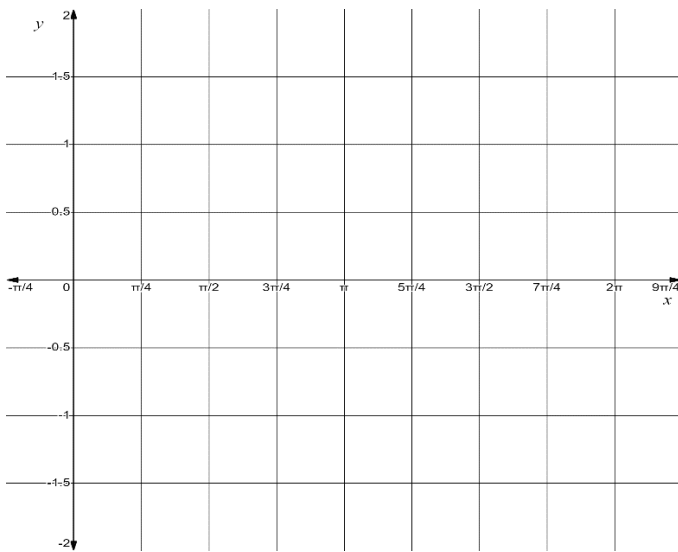
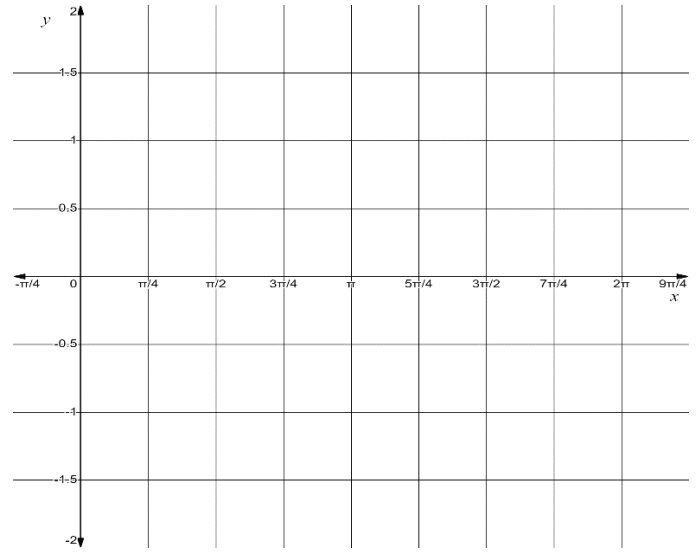
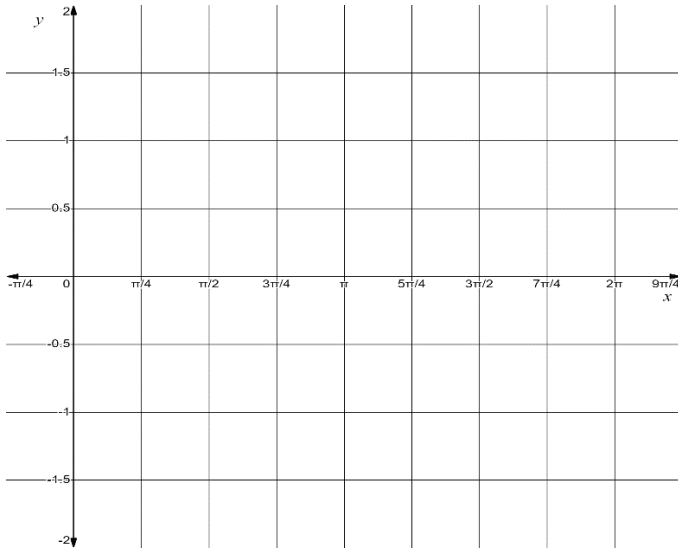
Applying derivatives to trigonometric and exponential functions.

**Quick recap from Pre – Calculus****Quick recap from Limits**

a.  $\lim_{x \rightarrow 0} \frac{\sin 2x}{\sin 4x}$

b.  $\lim_{x \rightarrow 0} \frac{\tan 2x}{x}$

c.  $\lim_{x \rightarrow 0} \frac{\cos 7x - 1}{x}$

**The Derivative of Sine and Cosine Graphically**

**Example** Use the quotient rule to find the derivative of  $y = \tan x$ .