Trigonometric Functions Review

1. Evaluate each of the following to 4 decimal places using a calculator.
   a) $\tan 30° =$ b) $\cos 180° =$ c) $\sin 270° =$
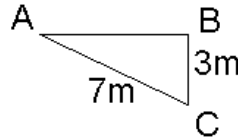
2. Find the angle to the nearest degree using your calculator.
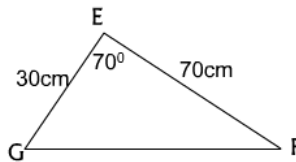   a) $\sin \theta = 0.4123$ b) $\tan \theta = 0.2345$ c.) $\cos \theta = 0.8585$

3. Solve the ΔABC for all missing sides & angles.

   A ——————— B
   ⟍   3m
   7m⟍
        C

4. Solve for Side E using Cosine Law.
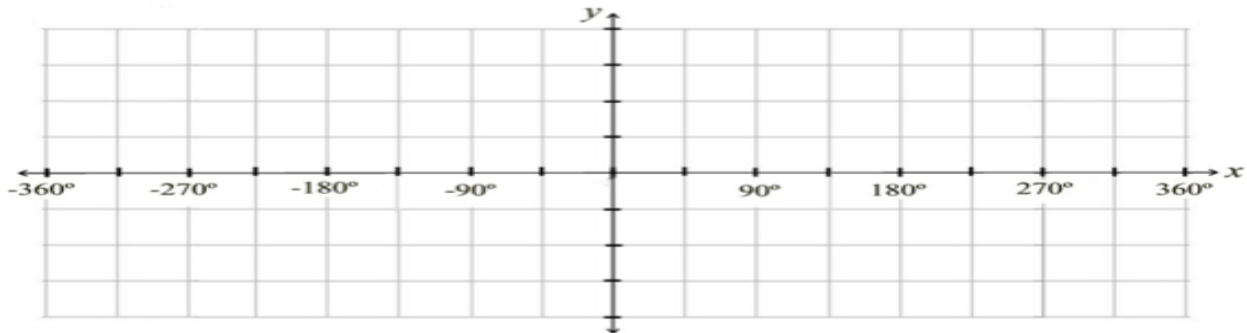
   E
   70°
   30cm   70cm
   G ——————— F

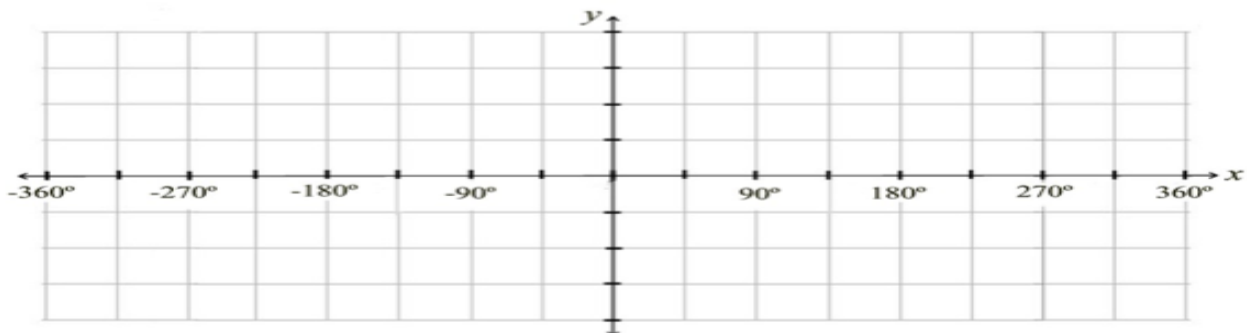5. Solve for Angle G and F using the Sine Law.

6. A ladder is 5m long. It leans against a wall. The angle formed by the ladder and the ground is 60 degrees. How far is the foot of the ladder from the wall? How far up the wall does the ladder reach?

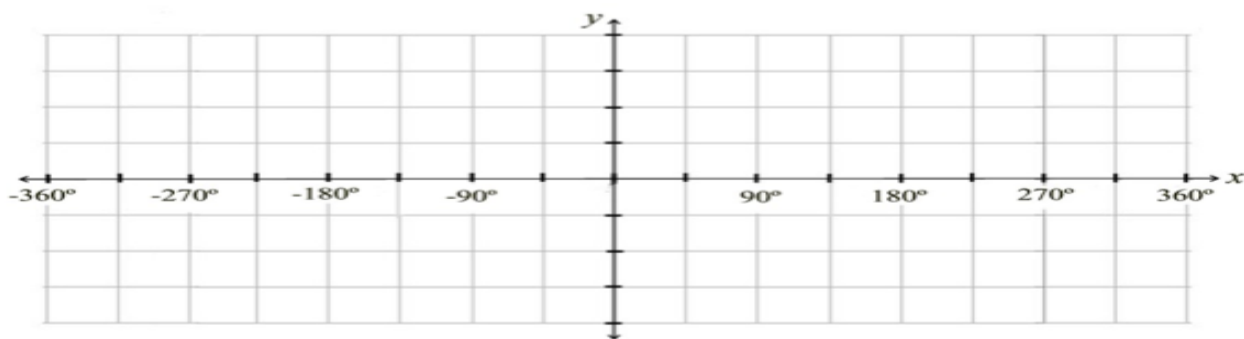7. Sketch a graph the following functions for two cycles on the grid provided.

$$y = -1\sin(\theta + 60°) - 2$$

$$y = 3\sin(\theta - 45°) - 1$$

$$y = 2\sin(\theta + 90°) - 1$$

8. Complete the chart below.

Function	Amplitude	Period	Vertical Shift	Phase Shift
$y = 3\sin\theta + 2$				
$y = \sin\theta - 2$				
$y = -2\sin(\theta + 90) - 1$				
$y = 3\sin(\theta + 180) - 1)$				

9. Identify the following two graphs as **periodic** or more specifically **sinusoidal** or **neither**.

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