Section 2-3 Sine and Cosine

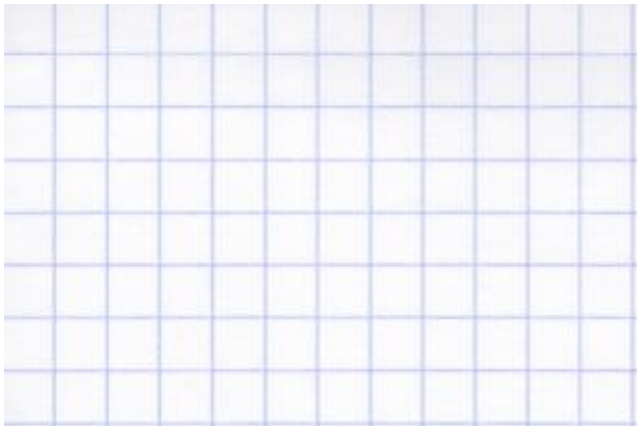
S O H – C A H – T O A

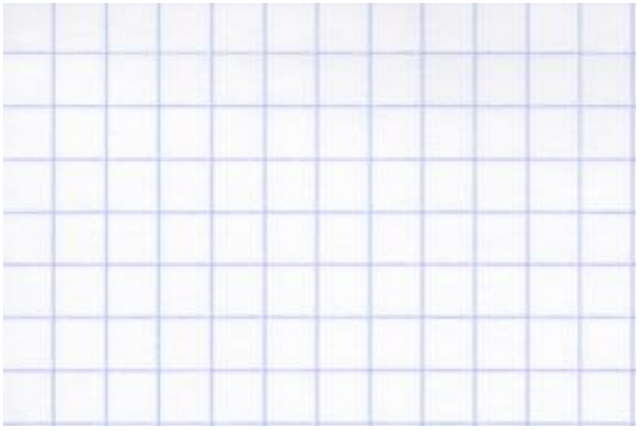
y = sin x

| x | 0 | 90 | 180 | 270 | 360 |
|---|---|---|---|---|---|
| y | | | | | |

y = cos x

| x | 0 | 90 | 180 | 270 | 360 |
|---|---|---|---|---|---|
| y | | | | | |





**These are **periodic** graphs (repeat at regular intervals). One **period** is graphed here.

Let (u, v) be a point r units from the origin on the terminal side of a rotating ray.

$\sin\theta =$ $\cos\theta =$

Draw the angle in standard position. Find the reference angle. Find the sine or cosine of the angle and its reference angle. Explain the relationship between them.

1. cos 147°

2. sin 320°

3. sin 120°

Use the definition of sine and cosine whose terminal side contains the given point.

4. (8, -5)

5. (-3, -4)