Key
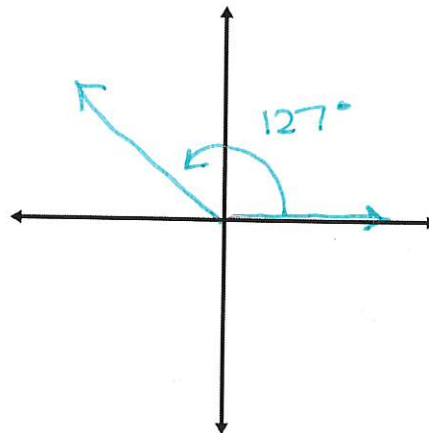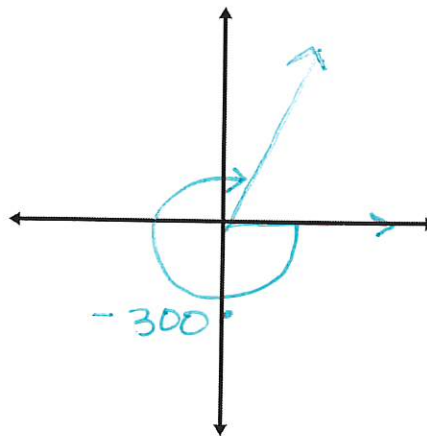
1. Draw an angle of 127° in standard position.

127°

2. Draw an angle of −300° in standard position and determine the exact value of sin (−300°).

−300°

S	A
T	C

3. Find the exact values of each:

   a. tan (120°)

   $-\tan 60$

   $-\sqrt{3}$

   b. sin (450°) = sin 90
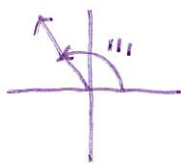
   = 1

   c. cos (135°) = −cos 45

   $= -\dfrac{\sqrt{2}}{2}$

4. Determine 1 positive co-terminal angle and 1 negative co-terminal angle for each:

   a. 111

   111 − 360 = −249°

   111 + 360 = 471°

   b. 252

   252

   252 − 360 = −108°

   252 + 360 = 612°

   c. 303

   303 − 360 = −57°

   303 + 360 = 663°
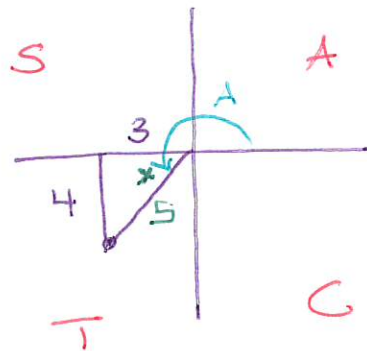
5. If the terminal side of an angle, A, in standard position, passes through (-3, -4), what is the numerical value of:

a. sin A

$$\sin A = -\sin x$$
$$= -\frac{4}{5}$$
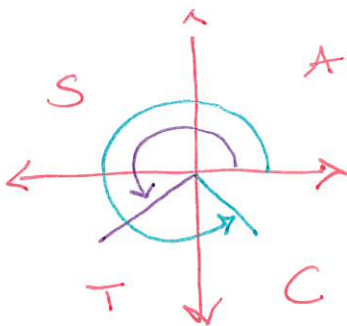
b. cos A

$$\cos A = -\cos x$$
$$= -\frac{3}{5}$$

* A is in Q III

* 180° ∠ A ∠ 270°

6. Find 2 values for x, on [0, 360), rounded to the nearest tenth, that satisfy the equation
$$\sin x = -0.8234$$

reference ∢ = $\sin^{-1}(0.8234)$

ref ∢ = 55.4266...

sin ⊖ in   Q II = 180 + ref ∢

Q IV = 360 - ref ∢

235.426...
304.573...

X = 235.4
304.6