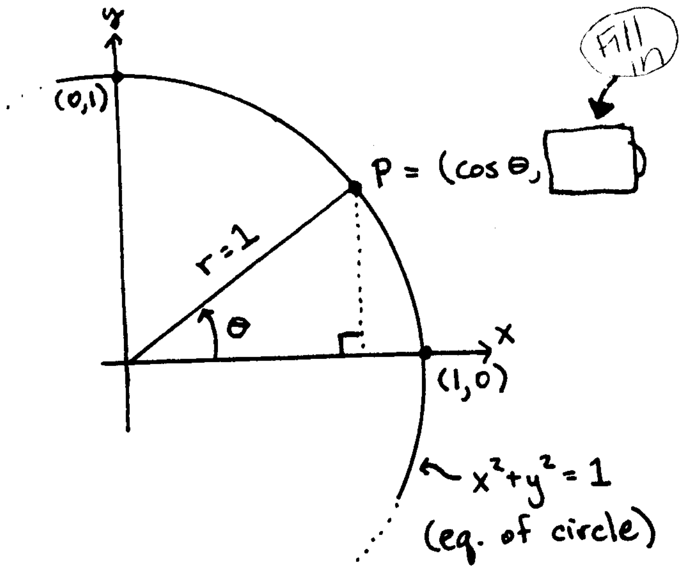
Review of Trig Functions



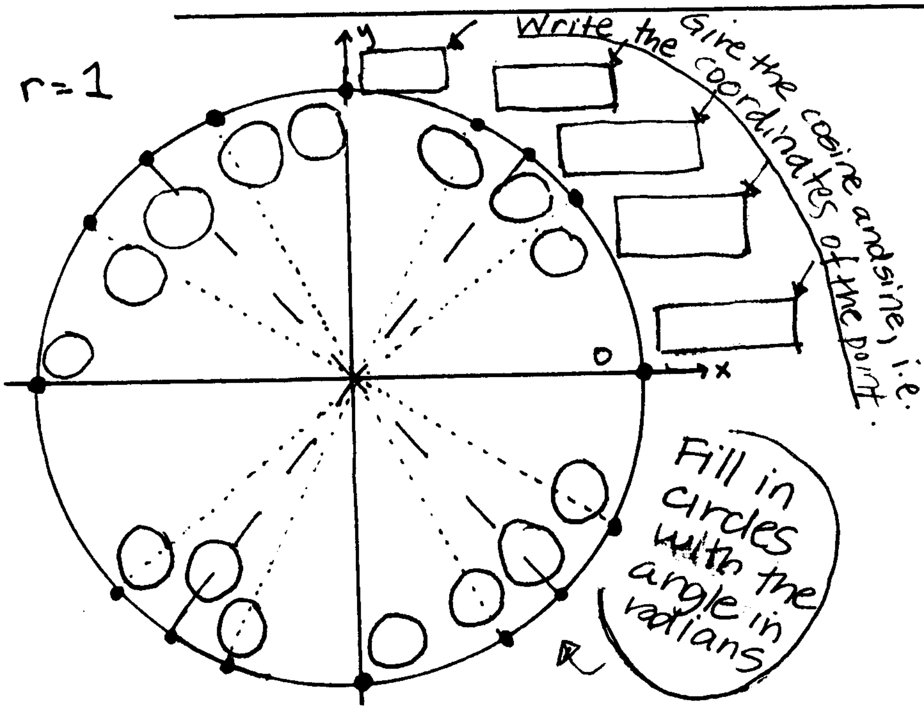
For the given angle θ, you may recall:

$\sin\theta = \dfrac{\text{opp.}}{\text{hyp.}} = \dfrac{\text{leg length opposite } \theta}{\text{length of hypotenuse}}$

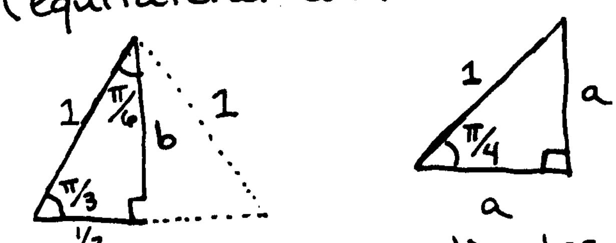
$\cos\theta = \boxed{}$ Fill in

Since the radius (hypotenuse) is 1, the point $P = (\cos\theta, \sin\theta)$

r=1



You can use the Pythagorean Theorem ($a^2+b^2=c^2$) and two special right triangles (equilateral and isosceles)



to compute the coordinates for the 16 points at left, and thus compute sin θ and cos θ for 16 special angles on the unit circle.

KNOW THESE:

$\tan\theta = \dfrac{\sin\theta}{\cos\theta}$ $\cot\theta = \dfrac{\cos\theta}{\sin\theta}$

$\csc\theta = \dfrac{1}{\sin\theta}$ $\sec\theta = \dfrac{1}{\cos\theta}$

$\sin^2\theta + \cos^2\theta = 1$

These may prove handy:

$\sin(x \pm y) = \sin x\cos y \pm \cos x \sin y$

$\cos(x \pm y) = \cos x \cos y \mp \sin x \sin y$

$\sin(2x) = 2\sin x \cos x$

$\cos(2x) = 1 - 2\sin^2 x$