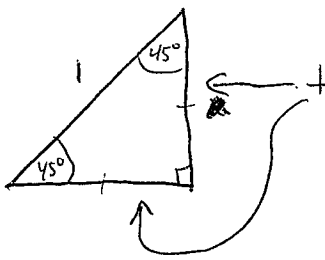
13)



← the legs are equal in length so both can be called "x".

then from the pythagorean theorem

$$x^2 + x^2 = 1^2$$

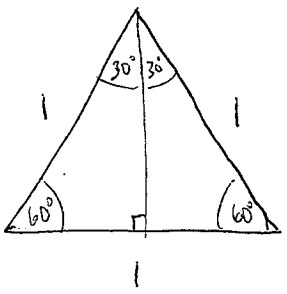
$$2x^2 = 1$$

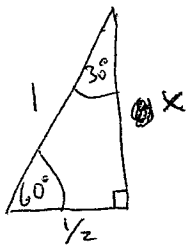
$$x^2 = 1/2$$

$$x = \sqrt{1/2} = \sqrt{1}/\sqrt{2} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$\frac{\sqrt{2}}{\sqrt{2}}$

14)





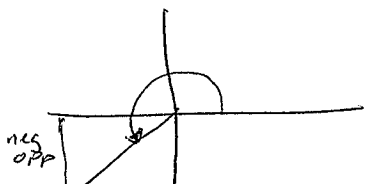
$$x^2 + (1/2)^2 = 1^2$$

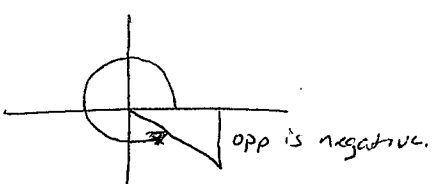
$$x^2 + 1/4 = 1$$

$$x^2 = 3/4$$

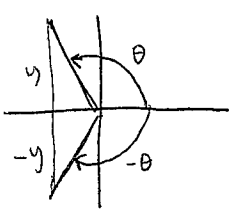
$$x = \sqrt{3/4} = \sqrt{3}/\sqrt{4} = \boxed{\sqrt{3}/2}$$

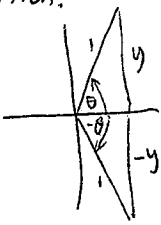
15) Because once θ is larger than 180°, the terminal side of the angle is in the third ~~a~~ or forth quadrant (if less than 360°) where the opposite side of its reference angle is negative





Showing geometrically that $\sin\theta$ is an odd function:

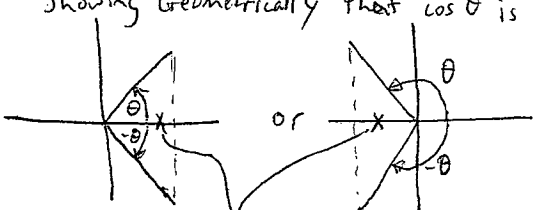




so $\sin\theta$ is an odd function.

$y = \sin\theta$
so $\sin(-\theta) = -y$
from pictures above.
~~that~~ is
$\sin(-\theta) = -\sin\theta$

16) Showing Geometrically that $\cos\theta$ is an even function:



x-value is the same so $\cos(-\theta) = \cos(\theta)$ and $\cos\theta$ is an even function.