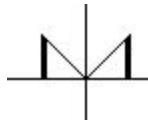
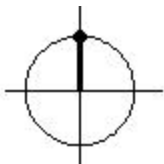
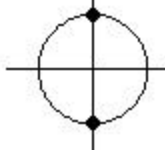


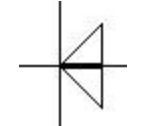
Without a calculator, solve each of the equations in 1-18 **exactly** for  $q$ ,  $0 \leq q < 2p$ .  
 Draw  $q$  in standard position. *Note:* The bold segment represents the output of the trig function.

1.  $\sin q = \frac{\sqrt{2}}{2}$    $q = \frac{p}{4}, \frac{3p}{4}$

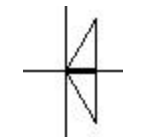
10.  $\cos q = -\frac{1}{2}$    $q = \frac{2p}{3}, \frac{4p}{3}$

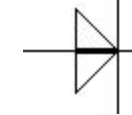
2.  $\sin q = 1$    $q = \frac{p}{2}$

11.  $\cos q = 0$    $q = \frac{p}{2}, \frac{3p}{2}$

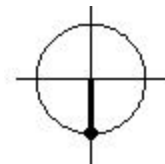
3.  $\cos q = \frac{\sqrt{2}}{2}$    $q = \frac{p}{4}, \frac{7p}{4}$


12.  $\sin q = -\frac{1}{2}$    $q = \frac{7p}{6}, \frac{11p}{6}$

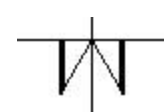
4.  $\cos q = \frac{1}{2}$    $q = \frac{p}{3}, \frac{5p}{3}$

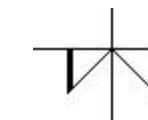
13.  $\cos q = -\frac{\sqrt{2}}{2}$    $q = \frac{3p}{4}, \frac{5p}{4}$

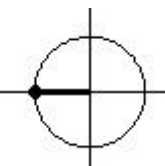
5.  $\sin q = \frac{\sqrt{3}}{2}$    $q = \frac{p}{3}, \frac{2p}{3}$

14.  $\sin q = -1$    $q = \frac{3p}{2}$

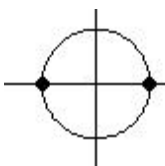
6.  $\sin q = \frac{1}{2}$    $q = \frac{p}{6}, \frac{5p}{6}$

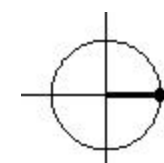
15.  $\sin q = -\frac{\sqrt{3}}{2}$    $q = \frac{4p}{3}, \frac{5p}{3}$

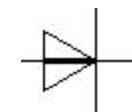
7.  $\sin q = -\frac{\sqrt{2}}{2}$    $q = \frac{5p}{4}, \frac{7p}{4}$

16.  $\cos q = -1$    $q = p$

8.  $\cos q = \frac{\sqrt{3}}{2}$    $q = \frac{p}{6}, \frac{11p}{6}$

17.  $\sin q = 0$    $q = 0, p$

9.  $\cos q = 1$    $q = 0$

18.  $\cos q = -\frac{\sqrt{3}}{2}$    $q = \frac{5p}{6}, \frac{7p}{6}$