## AdvAlg2, Homework due Monday, 5/8

Complete the following chart, showing each angle's measure in radians; and the sine and cosine for each angle in exact radical form (where appropriate).

Hint: to find the sine and cosine exactly, you may wish to construct a special right triangle.

| Measure <br> of $\alpha$ |  | $\sin \alpha$ | $\cos \alpha$ | Measure <br> of $\alpha$ |  | $\sin \alpha$ | $\cos \alpha$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $0^{\circ}$ |  |  |  | $180^{\circ}$ |  |  |  |
| $30^{\circ}$ |  |  | $210^{\circ}$ |  |  |  |  |
| $45^{\circ}$ |  |  | $225^{\circ}$ |  |  |  |  |
| $60^{\circ}$ |  |  |  | $240^{\circ}$ |  |  |  |
| $90^{\circ}$ |  |  |  | $300^{\circ}$ |  |  |  |
| $120^{\circ}$ |  |  |  | $315^{\circ}$ |  |  |  |
| $135^{\circ}$ |  |  |  |  |  |  |  |
| $150^{\circ}$ |  |  |  |  |  |  |  |
| $180^{\circ}$ |  |  |  |  |  |  |  |

(there is one more problem, on the other side)

Also: prove that the line defined by $y=\sqrt{3} x$ makes an angle of $60^{\circ}$ with the positive $x$-axis.

