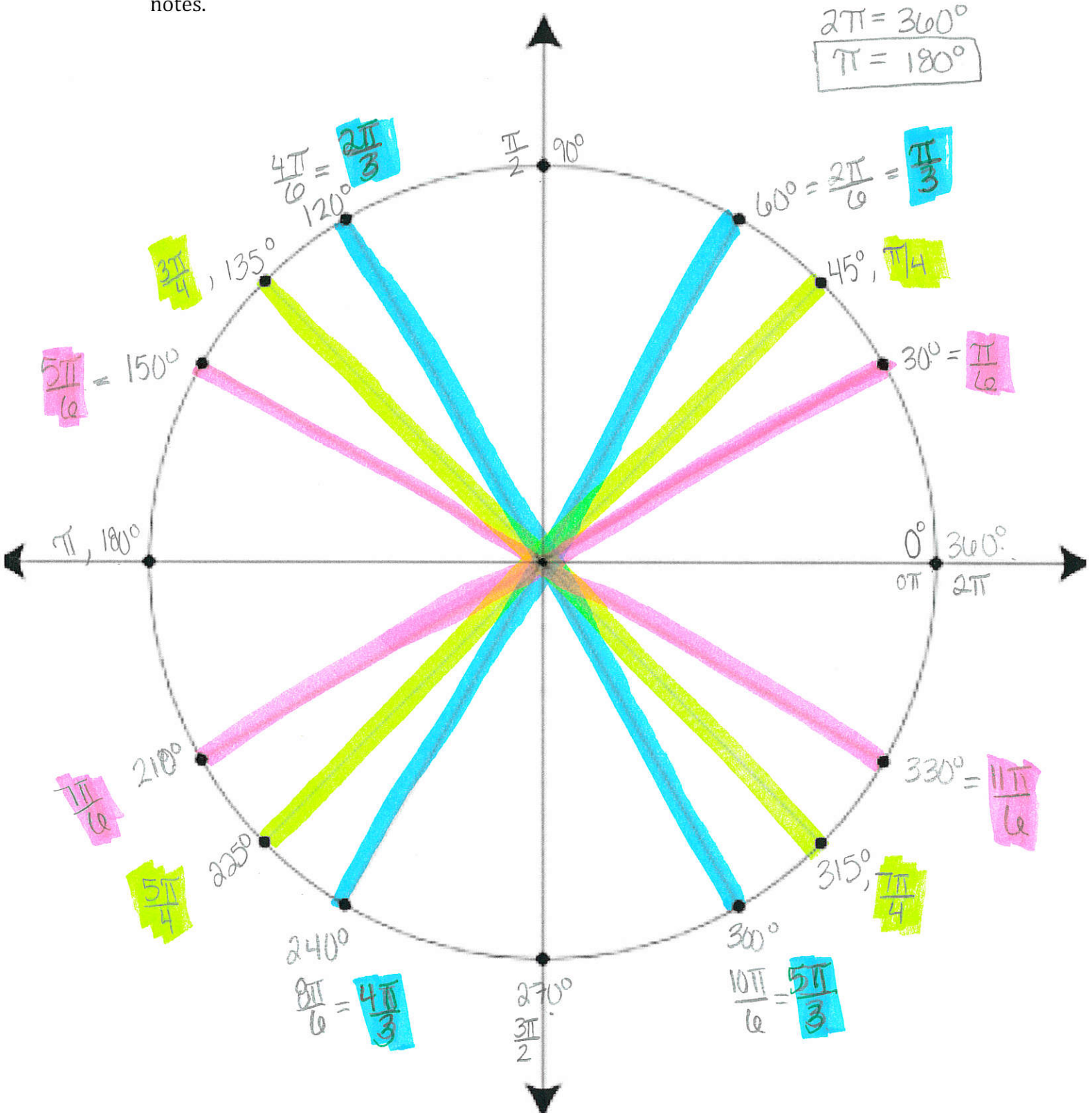


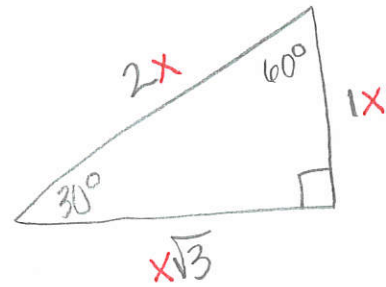
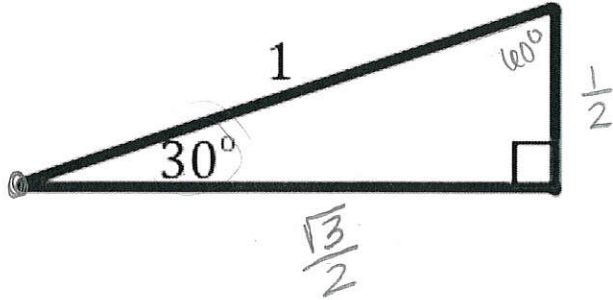
**Problem Set 3.5**

1. Fill in the degree and radian measures for the unit circle without referring to your notes.



2. Fill in the missing side lengths of each triangle.

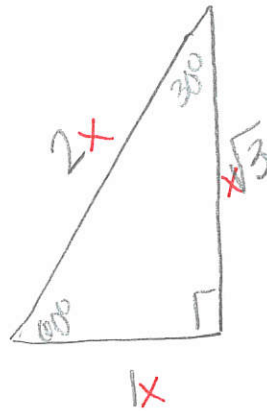
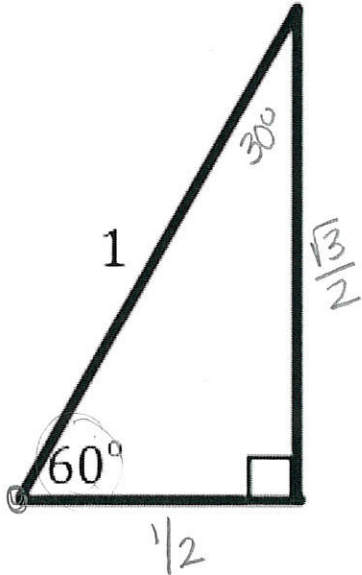
a)



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

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

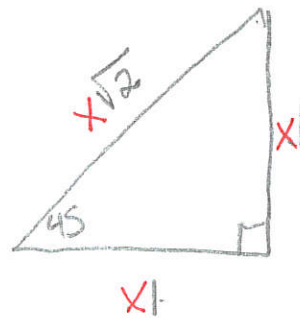
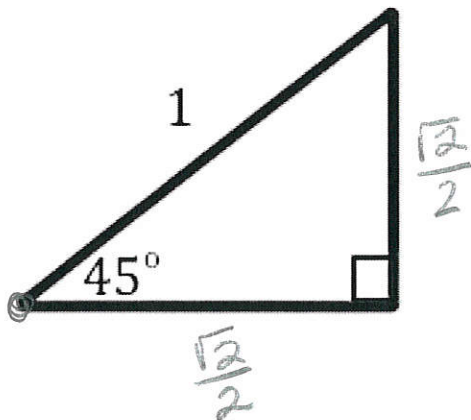
b)



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

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

c)

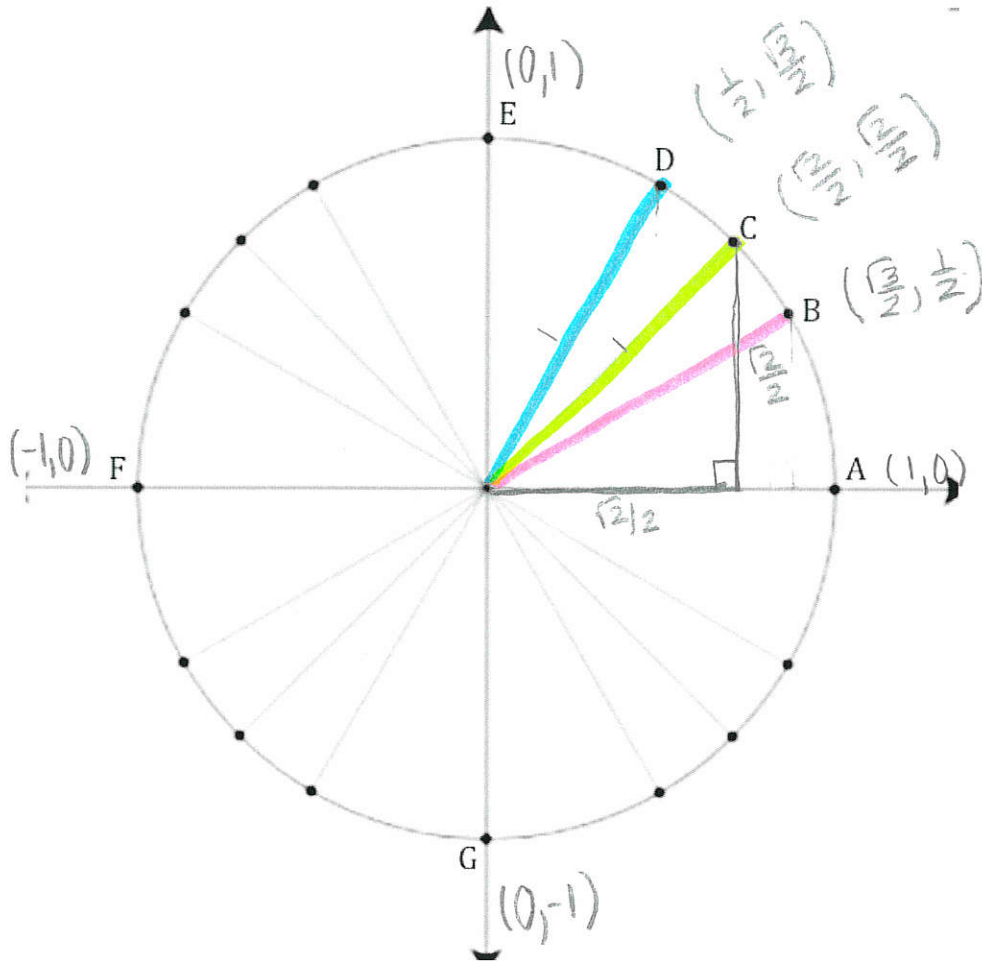


$$\frac{1}{\sqrt{2}} = \frac{x\sqrt{2}}{\sqrt{2}}$$

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

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

3. What are the coordinates of the points on the unit circle?



A: \_\_\_\_\_

B: \_\_\_\_\_

C: \_\_\_\_\_

D: \_\_\_\_\_

E: \_\_\_\_\_

F: \_\_\_\_\_

G: \_\_\_\_\_

4. In the picture below the points B, C, and D, are the same points from number 3. Points H, I, and J correlate to the points on the unit circle that lie on the terminal side of angle measures  $120^\circ$ ,  $135^\circ$ , and  $150^\circ$  respectively. How do you think the coordinates of points H, I, and J compare to the coordinates of points B, C, and D? Are they related at all?

