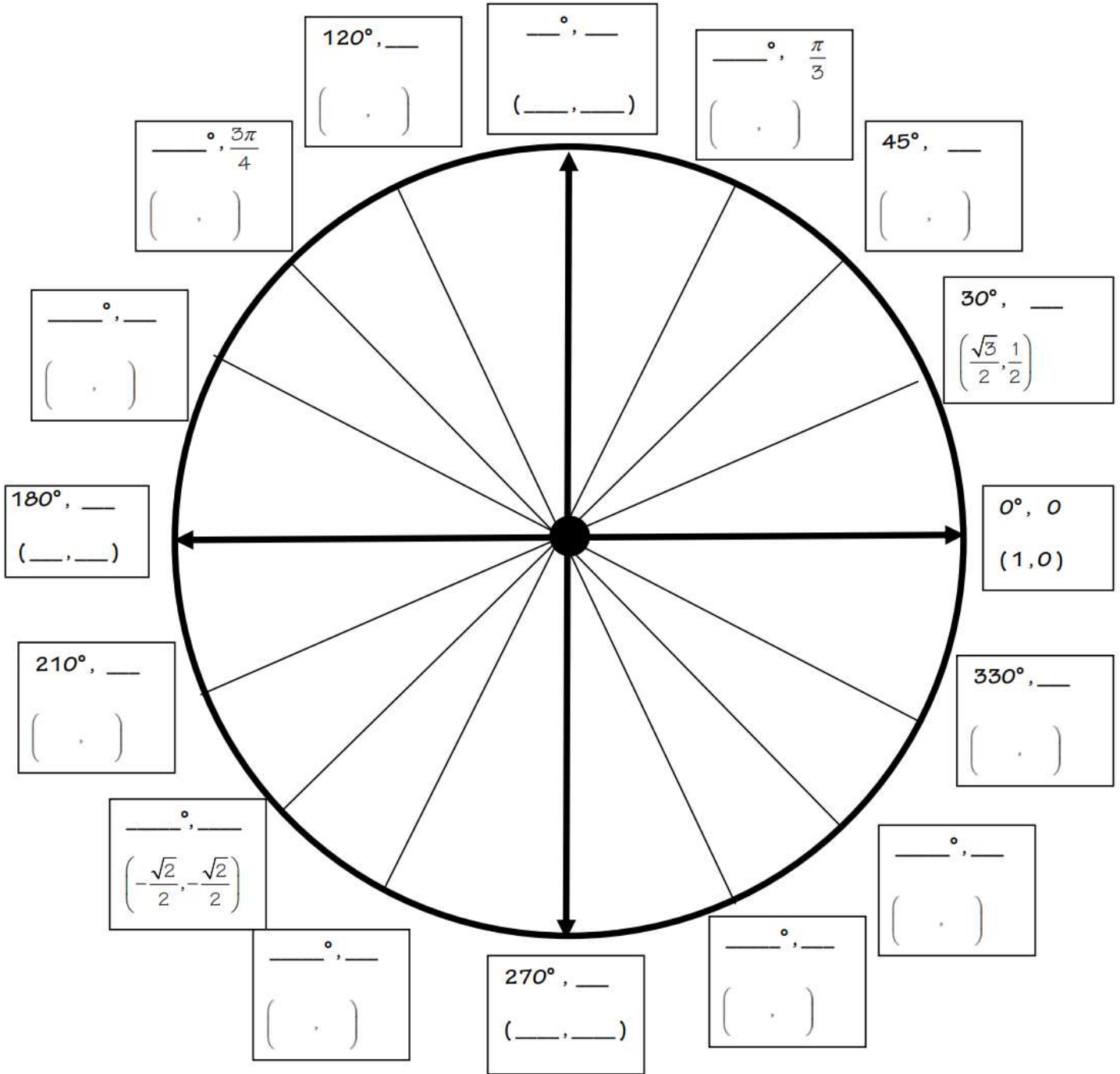


9.2 The Unit Circle

Fill in the missing values.

____°, ____radians
 $(x, y) = (\cos\theta, \sin\theta)$



Complete this table:

Angle (degrees) ^o	$\sin \theta$	$\cos \theta$	$\tan \theta$	Angle (radians)
0°				
30°				
45°				
60°				
90°				
120°				
135°				
150°				
180°				
210°				
225°				
240°				
270°				
300°				
315°				
330°				
360°				

Use the table and the Unit Circle to help answer these questions about the sine and the cosine:

1. The maximum value of the $\sin \theta$ is: _____. It occurs at what angle? _____.
2. The minimum value of the $\sin \theta$ is: _____. It occurs at what angle? _____.
3. As the angle θ goes from 0° to 90° the value of the $\sin \theta$ goes from _____ to _____.
4. As the angle θ goes from 90° to 180° the value of the $\sin \theta$ goes from _____ to _____.
5. As the angle θ goes from 180° to 270° the value of the $\sin \theta$ goes from _____ to _____.
6. As the angle θ goes from 270° to 360° the value of the $\sin \theta$ goes from _____ to _____.
7. The maximum value of the $\cos \theta$ is: _____. It occurs at what angle? _____.
8. The minimum value of the $\cos \theta$ is: _____. It occurs at what angle? _____.
9. As the angle θ goes from 0° to 90° the value of the $\cos \theta$ goes from _____ to _____.
10. As the angle θ goes from 90° to 180° the value of the $\cos \theta$ goes from _____ to _____.
11. As the angle θ goes from 180° to 270° the value of the $\cos \theta$ goes from _____ to _____.
12. As the angle θ goes from 270° to 360° the value of the $\cos \theta$ goes from _____ to _____.