

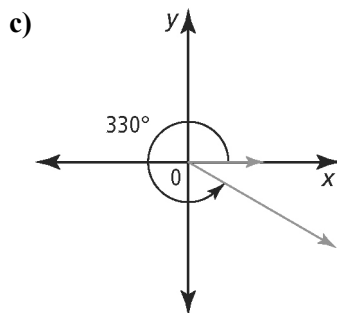
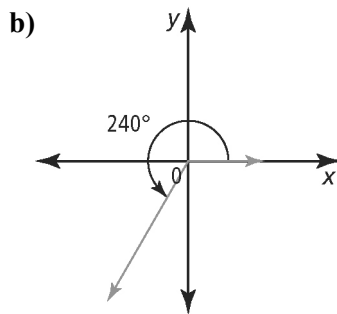
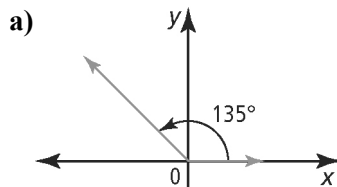
**Section 2.2 Extra Practice**

1. Sketch angles in standard position so that the terminal arm passes through each point.

- a) (1, 5)  
b) (4, -3)  
c) (-5, 12)  
d) (2, 0)

2. Determine the exact values of the sine, cosine, and tangent ratios for each angle in #1.

3. Determine the exact values of the sine, cosine, and tangent ratios for each angle.



4. Without using a calculator, state whether each ratio is positive or negative.

- a)  $\sin 100^\circ$   
b)  $\cos 200^\circ$   
c)  $\tan 300^\circ$   
d)  $\sin 350^\circ$

5. An angle is in standard position with its terminal arm in the stated quadrant. Determine the exact values for the other two primary trigonometric ratios for each.

- a)  $\sin \theta = \frac{-3}{5}$ ; quadrant III  
b)  $\cos \theta = \frac{2}{3}$ ; quadrant IV  
c)  $\tan \theta = \frac{-5}{12}$ ; quadrant II

6. Solve each equation, for  $0^\circ \leq \theta < 360^\circ$ . Use a diagram involving a special right triangle.

- a)  $\sin \theta = \frac{-1}{\sqrt{2}}$   
b)  $\tan \theta = \frac{1}{\sqrt{3}}$   
c)  $\cos \theta = \frac{\sqrt{3}}{2}$   
d)  $\sin \theta = -1$

7. Solve each equation, for  $0^\circ \leq \theta < 360^\circ$ .

- a)  $\sin \theta = 0.7760$   
b)  $\cos \theta = -0.8090$   
c)  $\tan \theta = -0.9004$   
d)  $\sin \theta = -0.9848$

8. Is each statement true or false? Justify your answer.

- a)  $\sin 120^\circ = \cos 210^\circ$   
b)  $\cos 170^\circ = \cos 350^\circ$   
c)  $\sin 200^\circ = \sin 340^\circ$   
d)  $\cos 300^\circ = \sin 150^\circ$

