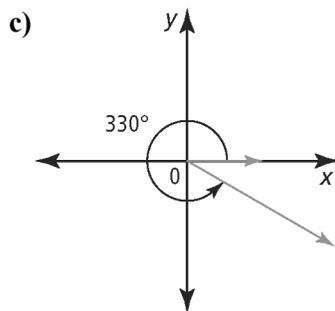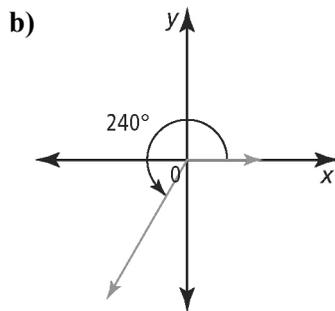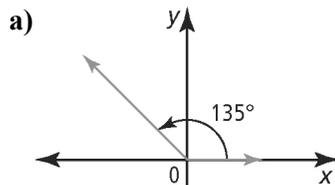Name: _____ Date: _____

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.

    a)

    b)

    c)

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

    a) sin 100°

    b) cos 200°

    c) tan 300°

    d) sin 350°

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) $\sin \theta = \dfrac{-3}{5}$; quadrant III

    b) $\cos \theta = \dfrac{2}{3}$; quadrant IV

    c) $\tan \theta = \dfrac{-5}{12}$; quadrant II

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

    a) $\sin \theta = \dfrac{-1}{\sqrt{2}}$

    b) $\tan \theta = \dfrac{1}{\sqrt{3}}$

    c) $\cos \theta = \dfrac{\sqrt{3}}{2}$

    d) $\sin \theta = -1$

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

    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° = cos 210°

    b) cos 170° = cos 350°

    c) sin 200° = sin 340°

    d) cos 300° = sin 150°