

## Lesson 5.4 Extra Practice

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1. State the quadrant in which the terminal arm of principal angle lies.

a)  $\theta = 97^\circ$   
b)  $\theta = 300^\circ$   
c)  $\theta = 166^\circ$   
d)  $\theta = 200^\circ$

2. Given the following coordinates, determine:

i) the value of  $r$  to the nearest tenth.  
ii) the primary trigonometric ratios for angle  $\theta$ .

a)  $(5, 3)$   
b)  $(-2, -2)$   
c)  $(-7, 3)$   
d)  $(4, -2)$   
e)  $(-8, -0)$   
f)  $(-12, 9)$

3. Given an angle  $\theta$ , determine the primary trigonometric ratios to the nearest hundredth.

a)  $\theta = 97^\circ$   
b)  $\theta = 300^\circ$   
c)  $\theta = 166^\circ$   
d)  $\theta = 200^\circ$   
e)  $\theta = 66^\circ$   
f)  $\theta = 315^\circ$

4. Given a trigonometric ratio, determine the exact values of  $x$ ,  $y$ , and  $r$ . Assume the angle lies in quadrant 4.

a)  $\tan \theta = -\frac{3}{4}$   
b)  $\cos \theta = \frac{7}{11}$   
c)  $\sin \theta = -\frac{16}{20}$   
d)  $\cot \theta = -\frac{10}{5}$   
e)  $\csc \theta = -\frac{9}{6}$   
f)  $\sec \theta = \frac{5}{2}$

5. Given the trigonometric ratio, determine all values of  $\theta$  to the nearest degree, if  $0^\circ \leq \theta \leq 360^\circ$ .

a)  $\cos \theta = 0.625$   
b)  $\tan \theta = 3.563$   
c)  $\csc \theta = -1.642$   
d)  $\cot \theta = -0.444$   
e)  $\sec \theta = 5.202$   
f)  $\sin \theta = -0.187$

6. Given the trigonometric ratio, determine all values of  $\theta$  to the nearest degree, if  $0^\circ \leq \theta \leq 360^\circ$ .

a)  $\sec \theta = -\frac{4}{3}$   
b)  $\cos \theta = -\frac{5}{9}$   
c)  $\csc \theta = \frac{4}{1}$   
d)  $\cot \theta = \theta \frac{11}{9}$   
e)  $\sin \theta = -\frac{5}{15}$   
f)  $\tan \theta = \frac{8}{5}$

7. Given a point on the terminal arm of an angle  $\theta$ , state the value  $\theta$  to the nearest degree if  $0^\circ \leq \theta \leq 360^\circ$ .

a)  $(-2, 2)$   
b)  $(7, 5)$   
c)  $(-6, 0)$   
d)  $(-4, -6)$   
e)  $(11, -11)$   
f)  $(0, -3)$