NAME:

**Lesson 4.2: Trigonometric Ratios for Any Angle**

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This assignment includes multiple choice and short answer questions. For multiple choice questions, select the best answer. Each is worth 1 mark. Marks assigned to short answer questions are indicated for each question. Be sure to show all necessary work.

**/1** 1. The exact value of , if the terminal arm of the angle in standard position passes through

the point , is:

1. 
2. 
3. 
4. 

Answer:

**/1** 2. The exact value of cos 240° is equivalent to

1. 
2. 
3. 
4. 

Answer:

**/2** 3. Label the sign of each ratio below as positive (P) or negative (N).

\_\_\_\_\_ A. 

\_\_\_\_\_ B. 

\_\_\_\_\_ C. 

\_\_\_\_\_ D.   
  
Answer:

**/1** 4. The solution(s) to for is (are)

1.  only
2.  only
3.  only
4.  and 

Answer:

5. The point (–9, 40) is on the terminal arm of an angle,, in standard position.

**/1** a. Sketch the angle in standard position.

Answer:

**/1** b. What is the length of the line segment connecting the origin to the point (–9, 40)?

Answer:

**/2** c. Determine the measure of , to the nearest tenth of a degree.

Answer:

6. The use of a ladder is considered safe if the angle between the ground and the ladder is less

than 75°. Charlie’s 5 ft long ladder is 1 ft from the base of a wall.

**/1** a. Is the ladder being used safely?

Answer:

**/1** b. How far away from the wall is the minimum distance Charlie’s other ladder should be if  
 it is 10 ft long?   
  
 Answer:

**/2** 7. Determine the value of , an angle in standard position, where  and ,

.  
  
 Answer:

**/13**

You have completed *Lesson 4.2 Explore Your Understanding Assignment*. Please continue your exploration with *Lesson 4.3.*