Trigonometry Test Review

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_

9.1-9.4 and 10.1-10.3

Algebra 2 with Trigonometry

Solve  using the diagram at the right and the given measurements.

Round your answers to two decimal places.

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|   |
| 1. Find one positive angle and one negative angle that is coterminal with the given angle.

Positive angle: \_\_\_\_\_\_\_\_\_ (degrees)Negative angle: \_\_\_\_\_\_\_\_\_ (degrees) | 1. Find one positive angle and one negative angle that is coterminal with the given angle.

Positive angle: \_\_\_\_\_\_\_\_\_ (degrees)Negative angle: \_\_\_\_\_\_\_\_\_ (degrees) |
| 1. Find one positive angle and one negative angle that is coterminal with the given angle.

Positive angle: \_\_\_\_\_\_\_\_\_ (radians)Negative angle: \_\_\_\_\_\_\_\_\_ (radians) | 1. Find one positive angle and one negative angle that is coterminal with the given angle.

Positive angle: \_\_\_\_\_\_\_\_\_ (radians)Negative angle: \_\_\_\_\_\_\_\_\_ (radians) |
| 1. Find the arc length and the area of the sector with:

(Round to the nearest two decimal places.)A radius of 10 inches and a central angle of  Arc length: \_\_\_\_\_\_\_\_\_Area of the sector: \_\_\_\_\_\_\_\_\_ | 1. Find the arc length and the area of the sector with:

(Round to the nearest two decimal places.)A radius of 16 feet and a central angle of  Arc length: \_\_\_\_\_\_\_\_\_1. Area of the sector: \_\_\_\_\_\_\_\_\_
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| 1. A stepladder has an angle of inclination of when leaning against the front of a house. The length of the stepladder is 24 feet. At what height does the stepladder meet the house?

(Round your answer to two decimal places.)\_\_\_\_\_\_\_\_\_ |

Evaluate the six trigonometric functions of the angle . Leave your answer in simplest radical form.

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Draw an angle with the given measure in standard position and find its reference angle.

|  |  |
| --- | --- |
| 1.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (radians) | 1.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (degrees) |

Evaluate. Leave your answer in simplest radical form.

|  |  |
| --- | --- |
| 1.
 | 1.
 |
| 1.
 | 1.
 |
| 1.
 | 1.
 |

Graph the function. Identify the amplitude and the period of the graph of the function.

|  |  |
| --- | --- |
| 1.

Amplitude: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ | 1.

Amplitude: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ |
| 1.

Amplitude: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ | 1.

Amplitude: \_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_ |

Find the values of the other five trigonometric functions of if 

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| --- | --- | --- |
| 1.

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Simplify the expression use trigonometry identities. Show all the steps.

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| --- | --- |
| 1.
 | 1.
 |
| 1.
 | 1.
 |

Solve for the indicated angle. Round to the nearest tenth of a degree.

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| 1. A car drives on a ramp in order to enter the parking garage. The ramp has a height of 4 feet and a horizontal length of 20 feet. What is the angle of the ramp?
 | 1. An airplane is flying at an altitude of 31,000 feet when it begins its decent for landing. If the runway is 104 miles away, at what angle does the airplane descend?

(Hint: don’t forget to convert miles to feet) |
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