**Chapter 9/10 Test Review**

**PART I - NO CALCULATOR**

|  |  |  |
| --- | --- | --- |
| List one positive and one negative coterminal angle. (There are many correct answers)   |  |  | | --- | --- | |  |  | |
| Convert the angle measurement from degrees to radians. Leave your answer in terms of .   |  |  | | --- | --- | |  |  | |
| Convert the angle measurement from radians to degrees.   |  |  | | --- | --- | |  |  | |
| Find the reference angle for the given angle.   |  |  | | --- | --- | |  |  | |
| 1. Find the six trigonometric functions of the angle  (in standard position) whose terminal side passes through the point (-5, -2) |
| Without using a calculator, find the following trig values, leaving your answers as simplified as possible (all fractions reduced and denominators rationalized).   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  | |  |  |  |  |  | |
| |  |  | | --- | --- | | Draw an angle with the given measure in standard position. |  | |
| Fill in the tables below for the parent functions of sine and cosine.   |  |  |  | | --- | --- | --- | |  | Sine | Macintosh HD:Users:teacher:Desktop:Picture 3.png | | Equation: |  | | Domain: |  | | Range: |  | | Period: |  | | Odd/Even? |  | | Symmetry? |  |  |  |  |  | | --- | --- | --- | |  | Cosine | Macintosh HD:Users:teacher:Desktop:Picture 3.png | | Equation: |  | | Domain: |  | | Range: |  | | Period: |  | | Odd/Even? |  | | Symmetry? |  | |
| Sketch one period of the graph and state the domain and range.   |  |  | | --- | --- | |  |  | |

|  |  |  |
| --- | --- | --- |
| Find the Arc length and area of the sector with the given angle and radius or diameter.   |  |  | | --- | --- | |  |  | |
| Find the missing information.   |  |  | | --- | --- | | 28. | 29. | |
| Consider the graph below.   |  |  | | --- | --- | | Macintosh HD:Users:teacher:Desktop:Screen shot 2016-03-10 at 4.50.38 PM.png | 30. What is the amplitude?  31. What is the period?  32. Write a function for the graph. | |

**PART II – CALCULATOR: Round all answers to three decimal places.**

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| --- | --- | --- | --- |
| Evaluate.   |  |  |  | | --- | --- | --- | | 33. | 34. |  | |
| 35. A cable is used to support a tower that is 245 meters tall. If the angle that the cable makes with the ground is 780, how long is the cable? |
| 36. At a point on the ground 46 feet from the base of a tree, the angle of elevation to the top of the tree is 48o. What is the height of the tree? |
| 37. The legs of an isosceles triangle are each 21 cm long the angle between them has a measure of 52o. What is the length of the base of the triangle? |
| 38. The designers of a water park are creating a new slide and have sketched some preliminary drawings. The length of the ladder is 30 feet, and its angle of elevation is .  Screen Shot 2013-05-28 at 11   * 1. Find the height of the side, h.   2. What does  represent? |

**ANSWERS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. , | | 1. , | | 1. 3. | |  | | |
|  | |  | |  | |  | | |
|  | | | | | | | | |
| 1. 0 |  | |  | 1. undefined |  | |  | |
|  | 1. 0 | | 1. 1 |  | 1. Macintosh HD:Users:teacher:Desktop:Screen shot 2016-03-10 at 4.42.08 PM.png | | 1. Macintosh HD:Users:teacher:Desktop:Screen shot 2016-03-10 at 4.42.26 PM.png | |
| |  |  |  | | --- | --- | --- | |  | Sine | Macintosh HD:Users:teacher:Desktop:Screen Shot 2015-04-15 at 6.43.48 PM.png | | Equation: |  | | Domain: |  | | Range: |  | | Period: |  | | Odd/Even? | Odd | | Symmetry? | Origin | | | | | | | | | |
| |  |  |  | | --- | --- | --- | |  | Coine | Macintosh HD:Users:teacher:Desktop:Screen Shot 2015-04-15 at 6.44.26 PM.png | | Equation: |  | | Domain: |  | | Range: |  | | Period: |  | | Odd/Even? | Even | | Symmetry? | y-axis | | | | | | | | | |
| Macintosh HD:Users:teacher:Desktop:Screen Shot 2015-04-15 at 6.46.34 PM.png  D:  R: | | | | Macintosh HD:Users:teacher:Desktop:Screen Shot 2015-04-15 at 6.47.26 PM.png  D:  R: | | | | |
| 26.  27.  28.  29. | | 30. 3  31.  32. | | 33. 0.857  34. 1.051  35. 250.473 m  36. 51.088 ft  37. 18.412 cm | | | |  |
| 38.   |  |  | | --- | --- | | * 1. 25.981 ft | * 1. is the angle of depression from the top of the slide to the ground | | | | | | | | | |