Title: **Trigonometry** Test: 10

Course: Electrical Applications Unit: Electrical Theory CLO: 3

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Grade \_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**

1. Student shall identify the components of a right triangle.
2. Student shall determine the third side of a triangle given two other sides.
3. Student shall apply trigonometric functions to produce appropriate quantities of a triangle.

**Assessment**

Students shall demonstrate a comprehension of the objectives listed above by scoring a minimum of 75% on this Test. Grading shall be based on an answer key.

**Instructions**

Match the items listed with the components of a triangle.



1. \_\_\_\_\_ A. Theta
2. \_\_\_\_\_ B. Right Angle
3. \_\_\_\_\_ C. Hypotenuse
4. \_\_\_\_\_ D. Adjacent
5. \_\_\_\_\_ E. Opposite

**Instructions**

Determine the length of the unknown side given two other sides.

|  |  |  |  |
| --- | --- | --- | --- |
|  | a | b | c |
| 6. | 3 |  | 5 |
| 7. |  | 2.1 | 5.981 |
| 8. | 96.825 |  | 100 |
| 9. | 212 | 507.5 |  |
| 10. | 59.321 |  | 88 |
| 11. | 123 | 439.098 |  |

**Instructions**

Determine the length of the unknown side given one side and the angle.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | O | H | θ |
| 12. |  | 6 |  | 30˚ |
| 13. | 1 |  |  | 45˚ |
| 14. |  | 1.036 |  | 22.5˚ |
| 15. | 19.625 |  |  | 17˚ |
| 16. | 3.438 |  |  | 67˚ |
| 17. | 3.2 |  |  | 89˚ |

**Instructions**

Determine the angle of theta and length of the unknown side given the length of two sides.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | O | H | θ |
| 18. | 5 | 7.483 |  |  |
| 19. | 2 | 4 |  |  |
| 20. |  | 12.619 | 13.3 |  |
| 21. | 6.06 | 3.7 |  |  |
| 22. | 5.6 |  | 10.515 |  |
| 23. | 5.48 |  | 6.2 |  |

1. Trigonometry is a(n);
   1. Circular function
   2. An angular based function
   3. a and b
   4. None of the above
2. The sum of all the angles in a right triangle equals 360˚.
   1. True
   2. false