# NOTES 9.4 & 9.5

# TRIGONOMETRIC RATIOS IN RIGHT TRIANGLES

***TRIGONOMETRIC RATIO:***

The three most common ratios are **SINE, COSINE, & TANGENT**.

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| **TRIGONOMETRIC RATIO** | ABBREVIATION | **DEFINITION** | **RATIO** |
| Sine of  |  |  |  |
| Cosine of  |  |  |  |
| Tangent of  |  |  |  |
| Sine of  |  |  |  |
| Cosine of  |  |  |  |
| Tangent of  |  |  |  |

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| EXAMPLE 1: Find , , , , , and . Express each ratio as a fraction. |
| **EXAMPLE 2: Find , , , , , and . Express each ratio as a fraction.** |
| **You can use a calculator or a trig table to evaluate expressions involving trigonometric ratios.** |
| EXAMPLE 3: Find each value using a calculator or a trig table. Round to the nearest  ten-thousandth.**a) \_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_** |

###### Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

###### Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 **\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **EXAMPLE 4: Find the missing measurement(s). Round to the nearest hundredth.** |
| **a)** Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **\_\_\_\_\_\_\_\_** | **b)** Equation:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **\_\_\_\_\_\_\_\_** |
| **c)**  | **d)** |

TABLE OF TRIGONOMETRIC VALUES

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