Name:

Block: Date:

**Math 10 – Trigonometry Homework #2**

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| sine θ = $\frac{opposite}{hypotenuse}$ cosine θ = $\frac{adjacent}{hypotenuse}$ tangent θ = $\frac{opposite}{adjacent}$ |

1. Which **equation** would be used to find **sin X** ?

 

1. **Explain** why **sin X** and **cos Y** produce the same results, no matter what sized right triangle is used :

 

1. Explain why **sin X =** $\frac{13}{12}$ produces an error message on a calculator :

 

1. Label the dimensions of the triangle below so that **sin X = 0.500** :

 

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| --- |
| sine θ = $\frac{opposite}{hypotenuse}$ cosine θ = $\frac{adjacent}{hypotenuse}$ tangent θ = $\frac{opposite}{adjacent}$ |

1. Determine the **ratio** of **cos X** : (leave the ratio in radical format)

 

1. Determine the **ratio** of **tan Y** :

 

1. Determine the **ratio** of **cos B** :

 

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| **Use the picture below to help answer the next question** |

 A **7%** grade indicates a rise of 7 metres for a horizontal change of 100 m

Assume **Angle Y** is the **angle of elevation** of the road.

1. Determine the **ratio** of **cos Y**