**Using SOH-CAH-TOA, answer the following.**

1. **What does the SOH represent?**
2. **What does the CAH represent?**
3. **What does the TOA represent?**

**Use the picture below for problems 4-6.**

B

****

C

A

1. **Find the length of the missing side of the triangle above.**
2. **Set up the appropriate trigonometric ratios. ( Don’t forget to label the pieces)**
3. **d)**
4. **e)**

1. **f)**

1. **Solve for the unknown angles.**
2. **b)**

**Solve for the missing angle round the nearest tenth.**

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**Solve for *a* and *x*.**

**13)**

**Solve for the missing variable round to the nearest tenth:**

**Solve the following problems ( Hint draw a picture)**

1. ****

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| **Picture:**  |

1. **A ladder with its foot on a horizontal flat surface rests against a wall. It makes an angle of 30° with the horizontal. The foot of the ladder is 41 ft from the base of the wall. Find the height of the point where the ladder touches the wall.**
2. ** A golfer is standing at the tee, looking up to the green on a hill. If the tee is 36 yards lower than the green and the angle of elevation from the tee to the hole is 12°, find the distance from the tee to the hole.**
3. **A tree stand 30 yards tall is attached to a zip cord. The angle of depression between the zip line and a platform on the ground is , find the distance you would travel on this zip line**

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| **Picture:**  |

1. **From the top of a tower of height 50 ft, the angles of depression of two cars on a straight road at the same level as that of the base of the spire and on the same side of it are 25° and 40°. Calculate the distance between the two cars.**

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| **Picture:**  |