MIXED PRACTICE/QUIZ REVIEW!

1. Given $\triangle ABC$ with $m\angle B = 90^{o}$. Match the following by placing the correct corresponding # in the blank.

a) _____ Opposite Leg to $\angle A$

b) _____ Sine Ratio of $\angle C$

1. $\dfrac{AB}{AC}$ 4. $\overline{AB}$

d) _____ The Longest Side (Hypotenuse)

2. $\dfrac{AB}{BC}$ 5. $\overline{BC}$

e) _____ Adjacent Leg to $\angle A$

f) _____ Tangent Ratio of $\angle C$

3. $\angle C$ 6. $\overline{AC}$

g) _____ Reference angle if $\dfrac{BC}{AC}$ is the Cosine Ratio.

2. Campsite *A* and campsite *B* are located directly opposite each other on the shores of Lake Omega, as shown in the diagram below. The two campsites form a right triangle with Sam's position, *S*. The distance from campsite *B* to Sam's position is 1,300 yards, and campsite *A* is 1,700 yards from his position.
    What is the distance from campsite *A* to campsite *B*, to the *nearest yard*?
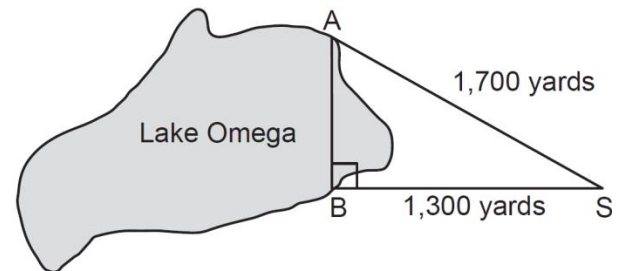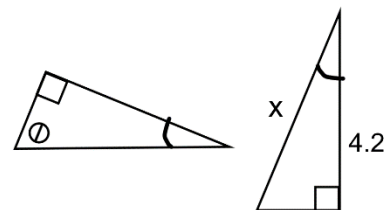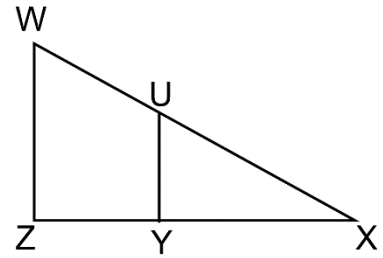
    1) 1,095

    2) 1,096

    3) 2,140

    4) 2,141

3. The diagram below shows two similar triangles. If $\sin \theta = \dfrac{5}{8}$, what is the value of *x*, to the *nearest tenth*?
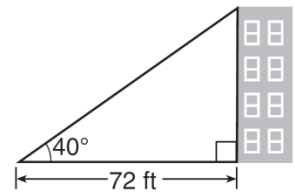
4. In the diagram of right triangle *WXZ* below, $\overline{WZ} \parallel \overline{UY}$. Which ratio is always equivalent to the cosine of $\angle X$?

1) $\dfrac{UX}{YX}$

2) $\dfrac{WX}{ZX}$

3) $\dfrac{ZX}{WX}$

4) $\dfrac{YX}{WX}$

W

U

Z   Y   X

As shown in the diagram below, a building casts a 72-foot shadow on the ground when the angle of elevation of the Sun is 40°. How tall is the building, to the *nearest foot*?

40°

72 ft

6. A 20-foot support post leans against a wall, making a 70° angle with the ground. To the *nearest tenth of a foot*, how far up the wall will the support post reach?

1) 6.8
2) 6.9
3) 18.7
4) 18.8

7. A ladder leans against a building that is perpendicular to the ground such that it makes a 74° angle with the ground and its bottom lies 2.75 feet from the base of the building. Determine the height that the ladder reaches up the wall to the nearest tenth of a foot.

74°

2.75 ft