Unit 2 Assessment for first part of unit

1. Find surface are and volume of the following shapes:

Cylinder: radius of 4.5cm Height of 2.7 cm

Rectangular solid length 12cm, height 5cm, width 4 cm

Triangular prism

Base of triangle

10 cm, height 3 cm, and height of prism 23 cm

Sphere radius of 5.3cm

1. On graph paper, lay out the following vertices of the triangle ABC A(-5, 3), B(2, -4) and C(0, -7). Find the perimeter and area of the triangle using the distance formula. Show all calculations.
2. Bill has to cut down a tree. The tree is 26’ from his house. If the tree casts a shadow of 32’ at a certain time of day and Bill, who is 6 ‘ tall, casts a shadow of 11 feet tall, how close to the house could the tree fall? Explain your answer with a diagram and the calculations.
3. John’s yard is a triangle with a 30-60-90 triangular shape. If the small side of the yard is 154’, how big are the other sides? If he cut the yard off and made a 45-45-90 triangle, using this side, what would be the length of the other sides.
4. If one side of a cube is 4.3cm, what scale factor would you use to figure the volume? Explain the k, k2, k3 scale factor process.
5. B

6.5 11.3

A

9.2

Find the following:

1. SinA
2. Cos B
3. Tan A
4. Tan B
5. Sin B
6. M< A
7. M,B