

Answer on Question #81505 – Math – Trigonometry

Question

A radio transmission tower is 150 feet tall. How long should a guy wire be if its to be attached 11 feet from the top and is to make an angle of 33 degrees with the ground? Give your answer to the nearest tenth of a foot.

Solution

$$150 - 11 = 139$$

$$AC = 139$$

$$\sin 33^\circ = AC/AB$$

$$AB = AC / \sin 33^\circ$$

$$AB = 139 / 0.5446 = 255.2$$

Answer: 255.2

