

Name : _____

Score : _____ Date : _____

Word Problems on Right Triangle

- 1 Anuj is flying a kite using a string of 250 meters. Which makes an angle of 60° with the ground. Assuming that the string is stretched out, find to the nearest foot, how high the kite is above the ground
- 2 A ladder is 30ft long and needs to reach 27 ft up a building. What should the angle of the vertical be ?
- 3 A tower casts a shadow that is 60 ft long when the angle of elevation of the sun is 65° . How tall is the tower ?
- 4 You are standing 70ft from a hot air balloon that is preparing to take off. The angle of elevation to the top of the balloon is 28° . Find the height of the balloon.
- 5 Tripti wants to measure the height of a tree. He walks almost 200 ft from the base of the tree and looks up. The angle from his eyes to the top of the tree is 35° . If his eye level is 5 feet from the ground, what is the height of the tree? ?
- 6 A 80ft flag pole has a rope tied from the ground. The rope makes an angle of 45° with the ground. How long is the rope.

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Answers

Word Problems on Right Triangle

- 1 Anuj is flying a kite using a string of 250 meters. Which makes an angle of 60° with the ground. Assuming that the string is stretched out, find to the nearest foot, how high the kite is above the ground

$125\sqrt{3}$ meters

- 2 A ladder is 30ft long and needs to reach 27 ft up a building. What should the angle of the vertical be ?

25.84°

- 3 A tower casts a shadow that is 60 ft long when the angle of elevation of the sun is 65° . How tall is the tower ?

128.67 ft

- 4 You are standing 70ft from a hot air balloon that is preparing to take off. The angle of elevation to the top of the balloon is 28° . Find the height of the balloon.

26.59 meters

- 5 Tripti wants to measure the height of a tree. He walks almost 200 ft from the base of the tree and looks up. The angle from his eyes to the top of the tree is 35° . If his eye level is 5 feet from the ground, what is the height of the tree? ?

75 ft

- 6 A 80ft flag pole has a rope tied from the ground. The rope makes an angle of 45° with the ground. How long is the rope.

113.13ft