

Trigonometric Ratios and the Pythagorean Theorem - Matching Worksheet

Match the word problems to their answers. Write the letter of the answer that matches the problem.

- _____ 1. A 25-foot tree cast a 10 foot shadow. Find the angle of elevation (in degrees) of the sun at this point of time. a. 51.32°
- _____ 2. A shadow of lamp post is 3 meters. Jacob plants a tree at the end of the shadow point. Jacob tied a 15 meters long rope to the top of the light lamp and bottom of the tree. Find angle of elevation (in degrees) is made. b. 53.13°
- _____ 3. A kite flies 600 feet of the ground. James flies the kite and makes a slope 700 feet long. What is the angle of elevation (in degrees) that is made? c. 78.5°
- _____ 4. An 80 feet wood ladder is leaning on a wall. The ladder's base is 50 feet far from the wall. Find the angle that the wood ladder makes with the ground. d. 177.5
- _____ 5. Find the length of the hypotenuse of a right triangle, if the lengths of the other two sides are 7 inches and 24 inches. e. 68.2°
- _____ 6. Emma climbs hills which is 75 feet high from the ground. Ethan saw the Emma at 25° angle. What is the distance between Emma and Ethan? f. 59°
- _____ 7. A 5 feet bat is leaning on a straight block. The height of the block is 4 feet. Find the angle that the bat makes with the ground. g. 29
- _____ 8. Find the length of the hypotenuse of a right triangle, if the lengths of the other two sides are 20 inches and 21 inches. h. 25

