Trig Word Problem Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A ladder is leaning against the side of a house so that the distance on the ground between the base of the ladder and the house is 7 feet. If the height of the ladder is 15 feet, then what is the angle at which the ladder is leaning? At what height does it reach the house?
2. If the safety information indicates the ladder should not be set up at an angle greater than 75o or less than 45o, what range of height can a 25­foot ladder safely reach?