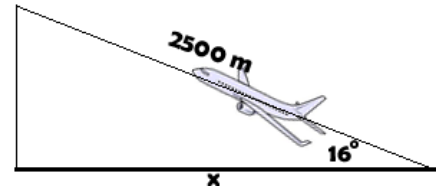
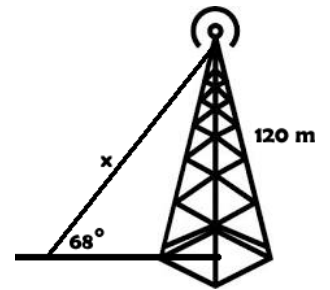


WORKSHEET 8-5

- 1) An airplane climbs at an angle of 16° with the ground. Find the ground distance the plane travels as it moves 2500 m through the air to the nearest meter.



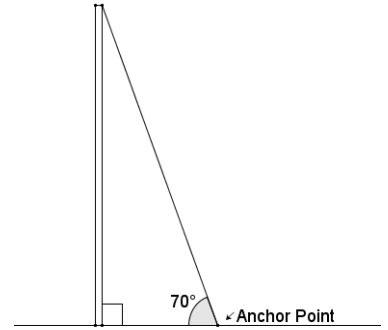
- 2) A guy wire reaches from the top of a 120 m television transmitter tower to the ground. The wire makes a 68° angle with the ground. Find the length of the guy wire to the nearest tenth of a meter.



- 3) Draw a diagram and solve the following: A man casts a 3 ft long shadow. If the sun's rays strike the ground at an angle of 62° , what is the height of the man to the nearest tenth of a foot?

- 4) A kite with a string 150 feet long makes an angle of 45° with the ground. What is the height of the kite to the nearest tenth of a foot? Be sure to draw a diagram first.

- 5) (Module 2 Lesson 25): A cable anchors a utility pole to the ground as shown in the picture. The cable forms an angle of 70° with the ground. The distance from the base of the utility pole to the anchor point on the ground is 3.8 meters. Approximately how many meters will be needed to replace the support cable? (Answer to the nearest tenth).



- 6) A ship drops an anchor at an angle of depression of 50° and waits for it to sink to the bottom of the ocean. Knowing that 200 meters of line have been uncoiled, how deep is the ocean beneath the ship?

