

Name \_\_\_\_\_ Date \_\_\_\_\_

## TRIGONOMETRY WORD PROBLEMS

Find the missing angle in each triangle below!

You are in a hot air balloon that is 600 feet above the ground where you can see your friend. If the angle from your line of sight to your friend is  $20^\circ$ , how far is he from the 600 ft point on the ground below the hot air balloon?

The angle from the tee box to the green is  $10^\circ$  on a par 3, 185 yard hole as shown. How much higher is the tee box than the green? Round to the nearest yard

You are designing a ramp where the horizontal distance is twice the vertical rise. What will be the ramp angle to the nearest tenth of a degree?

The length of one ramp is 16 feet. The vertical rise is 14 inches. Estimate the ramp's horizontal distance and its ramp angle. Does this ram meet the Uniform Federal Accessibility Standards?

You want to build a ramp with a vertical rise of 6 inches. You want to minimize the horizontal distance taken up by the ramp but still meet the Uniform Federal Accessibility Standards. Draw a sketch showing the approximate dimensions of your ramp.