

# Gorillas in the Mist

Joan Embery has spent much of her life researching the behavior of gorillas. Before examining injured gorillas, she must use a tranquilizer dart gun to sedate them. Her tranquilizer dart gun shoots darts at about 700 feet per second. Suppose Joan shot a dart (aimed horizontally at 6 ft above the ground) at a large injured gorilla 900 ft away.

a. Will the dart reach the gorilla?

**b. At what angle should Joan's aim be adjusted so that she can hit the gorilla at a point somewhere between 2 and 5 ft above the ground?**

c. How much leeway does Joan have in choosing the angle at which to shoot?