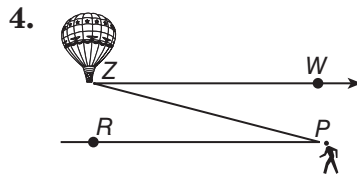
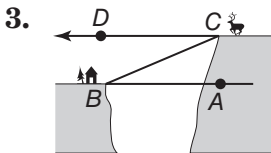
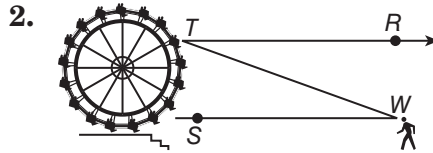
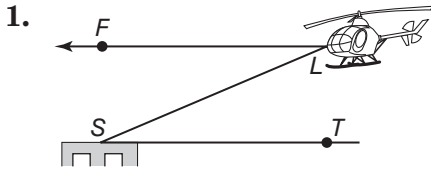


# 8-5 Skills Practice

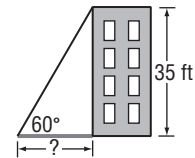
## Angles of Elevation and Depression

Name the angle of depression or angle of elevation in each figure.

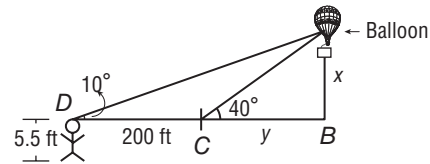


**5. MOUNTAIN BIKING** On a mountain bike trip along the Gemini Bridges Trail in Moab, Utah, Nabuko stopped on the canyon floor to get a good view of the twin sandstone bridges. Nabuko is standing about 60 meters from the base of the canyon cliff, and the natural arch bridges are about 100 meters up the canyon wall. If her line of sight is 5 metres above the ground, what is the angle of elevation to the top of the bridges? Round to the nearest tenth degree.

**6. SHADOWS** Suppose the sun casts a shadow off a 35-foot building. If the angle of elevation to the sun is  $60^\circ$ , how long is the shadow to the nearest tenth of a foot?



**7. BALLOONING** Angie sees a hot air balloon in the sky from her spot on the ground. The angle of elevation from Angie to the balloon is  $40^\circ$ . If she steps back 200 feet, the new angle of elevation is  $10^\circ$ . If Angie is 5.5 feet tall, how far off the ground is the hot air balloon?



**8. INDIRECT MEASUREMENT** Kyle is at the end of a pier 30 feet above the ocean. His eye level is 3 feet above the pier. He is using binoculars to watch a whale surface. If the angle of depression of the whale is  $20^\circ$ , how far is the whale from Kyle's binoculars? Round to the nearest tenth foot.

