

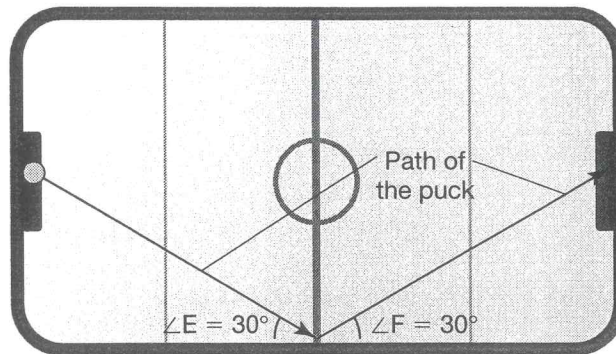
# Chapter 7 Estimating Angle Measures

## Lesson 1

### Answers

- A. For example, I agree because  $\angle A$  looks like half of a right angle. A right angle is  $90^\circ$ , so half of a right angle is  $45^\circ$ . When I measured with my protractor, I found that she was correct.
- B. For example,  $\angle B$  looks the same as  $\angle A$ . Since  $\angle A$  was  $45^\circ$ , I estimated that  $\angle B$  was also  $45^\circ$ . Likewise,  $\angle C$  and  $\angle D$  appeared to be the same size, which I estimated at about one-third of  $45^\circ$ , or  $15^\circ$ . When I measured with my protractor, I found that I was correct. I noticed that the size of the angles in each pair was the same.
- C. For example,  $\angle B$  should decrease by about  $10^\circ$ .
- D. For example,  $\angle D$  should increase by about  $10^\circ$ .

- E. For example, I chose  $30^\circ$  for  $\angle E$  and  $\angle F$ . As the drawing shows, the puck scored when bounced off side board point G.



- 1. For example, I compared the size of the angles I saw to the size of angles such as  $90^\circ$ ,  $45^\circ$ , and  $30^\circ$  that I knew.
- 2. a) If  $\angle E$  decreases,  $\angle F$  also decreases and the puck stays closer to the side board. It will strike under the net.  
b) If  $\angle E$  increases,  $\angle F$  also increases and the puck moves further away from the side board. It will strike over the net.
- 3. If the puck hits the side board at a right angle, it will bounce right back toward its starting point.