

she presses the button the ninth time, the machine cuts a two-meter length off the four-meter length of cloth, leaving her with only a two-meter length of cloth. So there is no reason for her to press the button a tenth time.

### **CLASS DISCUSSION PROBLEMS**

Answer the question asked if you are able to do so. If you believe the problem does not give enough information for you to solve it, then answer "not enough information." If you believe the problem gives contradictory information, then answer "no solution."

1. A man buys a horse for \$50, sells it for \$60, buys it back for \$70, and sells it again for \$80. How much money (total) did the man gain or lose on these deals?
2. A grasshopper is trying to get a maple leaf from where he found it to a hole in the ground 30 feet away. The grasshopper hops 3 feet each time. However, the wind is gusty and very strong today, and every time the grasshopper hops 3 feet and lands, the wind picks him up and blows him back 2 feet. How many hops must the grasshopper hop to get the maple leaf into the hole?
3. A man started out from his cabin and walked ten kilometers due south, then ten kilometers due east, and then ten kilometers due north. At that point he found himself back where he started, and he saw a bear, which was native to the region, sitting on top of his cabin. What color was the bear?
4. A man started out from his cabin and walked ten kilometers due south, then ten kilometers due east, and then ten kilometers due north. At that point he found himself back where he started, and he saw a bird, which was native to the region, sitting on top of his cabin. What kind of bird was it, if he did not start out from the same place as the man in problem 4?
5. You have two coins totalling 300, and one of them is not a quarter. What are the two coins?
6. If eight crows can steal eight buttons in eight minutes, how long will it take sixteen crows to steal sixteen buttons?
7. If eight crows can steal eight buttons in eight minutes, how many buttons can sixteen crows steal in sixteen minutes?
8. If eight crows can steal eight buttons in eight minutes, how many crows will it take to steal sixteen buttons in sixteen minutes?
9. Ms. Garjel wants to enter a race which requires a runner to complete two laps at an average speed of 24 km an hour in order to qualify for the race. During her first lap, Ms. Garjel got a cramp in her leg and ran only 12 km an hour. How fast does she have to run during her second lap in order to qualify for the race?
10. All boys have purple teeth. Aloysius is a boy, but he doesn't have purple teeth. How is this possible?