



## Economic Detective Mars Station

CHAPTER 4

### Problem

Mars Sports Supply is a company doing business at the Mars Station colony on the planet Mars. The colonists are engaged in terraforming, or transforming the planet into an Earth-like atmosphere, with plants, water, and a breathable atmosphere. The planet currently has vast areas of sandy flats that are scoured by high winds. Mars Sports Supply is beginning production of a new product, the Sand Surfer, a surfboard with sails designed to travel at high speeds on sand. Since the planet has extremes of temperature and the atmosphere is not breathable by humans, people using the Sand Surfer will require special equipment such as space suits, oxygen tanks, and so on. Furthermore, the equipment will be subject to heavy wear from windblown sand. The company estimates that the sails are good for about 40 hours of use and the board for about 100 hours. Use what you have learned in this chapter to answer the questions that follow.



### Investigation 1

Mars Station currently has about 100 families, with 75 adults between the ages of 21 and 35. Mars Sports Supply believes its new product will be successful, but it needs to know how much people would be willing to pay for the items.

1. How might the company decide what to charge for the items? \_\_\_\_\_  
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2. After a year of production, the company decides to raise its prices. In the meantime, the families at Mars Station have received large bonuses since their work is going well. What factors will affect the customers' demand for the products in the coming year? \_\_\_\_\_  
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### Investigation 2

A large group of new settlers have arrived at Mars Station. Most of them—about 50—are under 30 years of age.

1. How will the demand for Mars Sports Supply products be affected? Explain your answer.  
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2. What other factors related to the new settlers might affect the demand for Mars Sports Supply products? \_\_\_\_\_  
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### Investigation 3

Terraforming is proceeding more rapidly than expected. Within a decade, what are now sand flats will be well-watered plains covered in grass and other plants that produce oxygen. Eventually, the planet will have large bodies of water comparable to the small oceans and seas on Earth.

1. How will this change affect demand for Sand Surfers? For sails? For oxygen tanks and other equipment? Explain your answer. \_\_\_\_\_  
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2. What could the company do to adjust to the long-term changes on the planet? \_\_\_\_\_  
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## What Factors Affect Demand?

Situation	Factor	Movement of the Demand Curve	Why Demand Curve Moves Right or Left
1. People's income increases.			
2. Spending on inferior goods when people's income increases.			
3. Hot dog sales increase and you make hot dog buns.			
4. Migration has increased the population of a region.			
5. Popularity of a product declines.			
6. Competitor raises prices on products with quality equal to your products.			
7. Discount store sells air conditioners in December.			