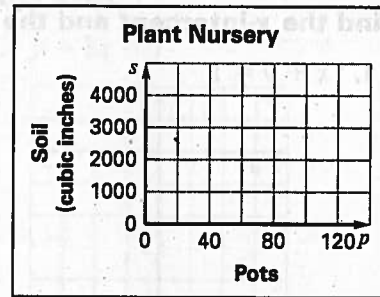


**LESSON**  
**4.2**

**Practice** *continued*  
For use with pages 215–222

**23. Plant Nursery** A gardener at a nursery is filling pots with soil to prepare to transplant seedlings into these larger pots. Each new pot needs about 27 cubic inches of soil. The amount of soil  $s$  (in cubic inches) it takes to fill  $p$  pots is given by the function  $s = 27p$ .

- a. The gardener is filling the pots from a bag of soil that contains 3456 cubic inches of soil. Graph the function and identify its domain and range. How many pots can be filled from the bag?



- b. Suppose the gardener needs to fill 100 pots. Graph the function on the same coordinate plane in part (a) and identify its domain and range. How much soil (in cubic inches) will the gardener need?

**24. Apartment Lease** Whenever you sign a lease for an apartment, you typically have to pay a security deposit in case you have caused any wear or tear on the apartment that has to be repaired before it can be re-leased. If no repairs need to be made, you get your entire deposit back. One apartment building has apartments that rent for \$500 a month and a security deposit of \$700. The total cost  $C$  (in dollars it costs to rent the apartment for  $m$  months) is given by the function  $C = 500m + 700$ . Graph the function and identify its domain and range. Identify the domain and range if a renter only leases an apartment for one year and then moves out and doesn't get the security deposit back. How does this change the appearance of the graph? *Explain.*

