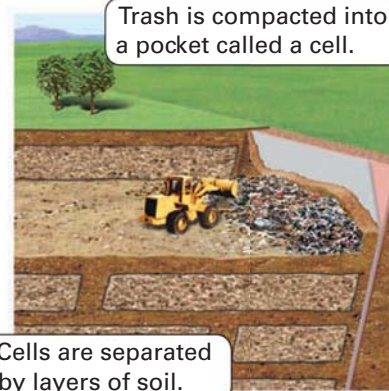


42. **MULTI-STEP PROBLEM** The capacity of a landfill is 4,756,505 tons. The landfill currently holds 2,896,112 tons. A cell is added to the landfill every day, and each cell averages 1600 tons.
- Write an equation that gives the amount y (in tons) in the landfill as a function of the number x of days from now.
 - After how many days will the landfill reach capacity? Round your answer to the nearest day.
 - Use estimation to check your answer to part (b).



43. **MULTIPLE REPRESENTATIONS** Two computer technicians are upgrading the software on the 54 computers in a school. On average, Marissa upgrades 5 computers in 1 hour and Ryan upgrades 7 computers in 1 hour.
- Writing an Equation** Write an equation that gives the number y of computers upgraded as a function of the number x of hours worked.
 - Making a Table** Make a table that shows the number of computers upgraded by each technician and the total number of computers upgraded after 1, 2, 3, 4, and 5 hours.
 - Drawing a Graph** Graph the ordered pairs that represent the total number y of computers upgraded after x hours. Use the graph to estimate the number of hours it took to upgrade all of the computers.
44. **TAKS REASONING** At a restaurant, customers can dine inside the restaurant or pick up food at the take-out window. On an average day, 400 customers are served inside the restaurant, and 120 customers pick up food at the take-out window. After how many days will the restaurant have served 2600 customers? *Explain.*
45. **CHALLENGE** During a 1 mile race, one runner is running at a rate of 14.6 feet per second, and another runner is running at a rate of 11.3 feet per second. One lap around the track is 660 feet. After how many seconds will the faster runner be exactly one lap ahead of the other runner?



MIXED REVIEW FOR TAKS

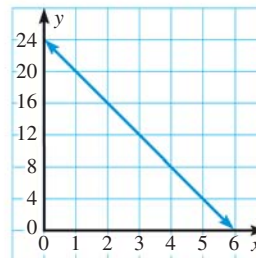
TAKS PRACTICE at classzone.com

REVIEW

Lesson 1.7;
TAKS Workbook

46. **TAKS PRACTICE** Which equation best describes the graph shown? *TAKS Obj. 1*

- (A) $y = x - 4$
 (B) $y = 24 - 4x$
 (C) $y = 24x - 4$
 (D) $y = -4(x + 24)$



REVIEW

Skills Review
Handbook p. 936;
TAKS Workbook

47. **TAKS PRACTICE** If a is positive, b is negative, and $c = 0$, which of the following expressions is positive? *TAKS Obj. 10*

- (F) $a(b + c)$ (G) $c(a + b)$ (H) $b(b - a + c)$ (J) $c(a - b + ab)$