

37. **SCIENCE** Atmospheric pressure, measured in pounds per square inch (psi), is the pressure exerted on an object by the weight of the atmosphere above the object. The atmospheric pressure p (in psi) can be modeled by

$$p = \frac{14.55(56,267 - a)}{55,545 + a}$$

where a is the altitude (in feet). Is the change in altitude greater when the atmospheric pressure changes from 10 psi to 9 psi or from 8 psi to 7 psi? *Explain* your answer.

38. **CHALLENGE** Butterfat makes up about 1% of the volume of milk in 1% milk. Butterfat can make up no more than 0.2% of the volume of milk in skim milk. A container holds 15 fluid ounces of 1% milk. How many fluid ounces of butterfat must be removed in order for the milk to be considered skim milk? Round your answer to the nearest hundredth.



MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW

Lesson 4.4;
TAKS Workbook

39. **TAKS PRACTICE** The table shows three points that lie on the graph of the linear function $f(x)$. What is the slope of the graph of $f(x)$? **TAKS Obj. 3**

x	2	4	7
$f(x)$	9	12	16.5

- (A) $\frac{3}{2}$ (B) 2 (C) 3 (D) $\frac{9}{2}$

REVIEW

Skills Review
Handbook p. 918;
TAKS Workbook

40. **TAKS PRACTICE** Given the set of data {32, 27, 22, 32, 27, 22, 32, 32, 62}, which statement best interprets the data? **TAKS Obj. 9**

- (F) Of the mean, median, and mode, only the mean is 32.
(G) The range of the set of data is 32.
(H) The mean, median, and mode are all 32.
(J) The mode and median are not the same.

QUIZ for Lessons 12.5–12.7

Find the product or quotient. (p. 802)

1. $\frac{5}{8x^2} \cdot \frac{4x^3}{15}$

2. $\frac{3y^2 + 6y}{y^2 - 16} \div \frac{y^2}{y - 4}$

Find the sum or difference. (p. 812)

3. $\frac{8a}{a + 11} - \frac{5a - 1}{a + 11}$

4. $\frac{6n}{n + 3} + \frac{n - 1}{n^2 + 5n + 6}$

Solve the equation. Check your solution. (p. 820)

5. $\frac{2z}{z + 5} = \frac{z}{z - 3}$

6. $\frac{2x}{x} + \frac{3 - x}{x + 1} = \frac{-4}{x^2 + x}$

7. **BATTING AVERAGES** A softball player's batting average is the number of hits divided by the number of times at bat. A softball player has a batting average of .200 after 90 times at bat. How many consecutive hits does the player need in order to raise the batting average to .250? (p. 820)

