55. ⬆ **TAKS REASONING** In a trivia competition, your team earned 60, −100, 300, 120, and −80 points on 5 questions. The sixth question has a value of 300 points. By how many points will your team's mean score per question change if you answer the sixth question correctly?

Ⓐ 40 points   Ⓑ 50 points   Ⓒ 60 points   Ⓓ 100 points

56. ⬆ **TAKS REASONING** The South Aral Sea in Russia was about 57 meters above sea level in 1965. Scientists once predicted that the elevation would be about 34 meters above sea level in 2002.

 a. Estimate the average rate of change in elevation for the period 1965–2002 using the scientists' prediction. Round to the nearest hundredth of a meter per year.

 b. More recent research suggests that the elevation decreased to about 30.5 meters above sea level in 2002. Use this information to predict the elevation in 2010. *Explain* the steps of your solution.
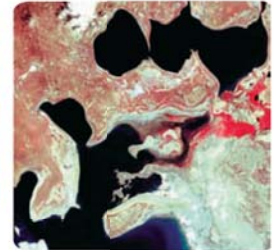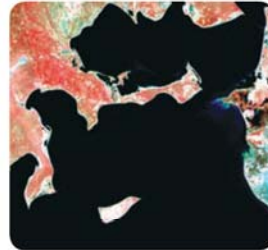
South Aral Sea, 1973   **South Aral Sea, 2000**

57. ⬆ **TAKS REASONING** In volleyball, an ace is a serve that the opponent doesn't hit. Ace efficiency is a measure of a player's ability to hit aces while minimizing service errors. The ace efficiency f is given by the formula $f = \dfrac{a - e}{s}$ where a is the number of aces, e is the number of service errors, and s is the total number of serves.

 a. Calculate Find the ace efficiency for a player who has 108 aces and 125 service errors in 500 serves.

 b. Compare If the player makes 30 more aces and 20 more service errors in the next 100 serves, will the ace efficiency improve? *Explain.*

 c. Justify Under what conditions would a player's ace efficiency be 0? 1? −1? *Justify* your answers algebraically.

58. CHALLENGE The average daily balance of a checking account is the sum of the daily balances in a given period divided by the number of days in the period. Suppose that a period has 30 days. Find the average daily balance of an account that has a balance of $110 for 18 days, −$300 for 10 days, and $100 for the rest of the period.

TAKS **PRACTICE** at classzone.com

MIXED REVIEW FOR TAKS

59. ⬆ **TAKS PRACTICE** Which equation could be used to generate this table of values? *TAKS Obj. 1*

x	5	10	15	20
y	0	10	20	30

Ⓐ $y = x - 5$ Ⓑ $y = 2x - 5$ Ⓒ $y = 2x - 10$ Ⓓ $y = 4x - 20$

60. ⬆ **TAKS PRACTICE** A taxi driver charges $3.50 to drive 2 miles, $5.00 to drive 3 miles, and $6.50 to drive 4 miles. How much would you expect the taxi driver to charge to drive 6 miles? *TAKS Obj. 10*

Ⓕ $9.50   Ⓖ $9.75   Ⓗ $10.00   Ⓙ $10.50