1. Which deposit will earn the most simple interest for the given terms and annual interest rates?
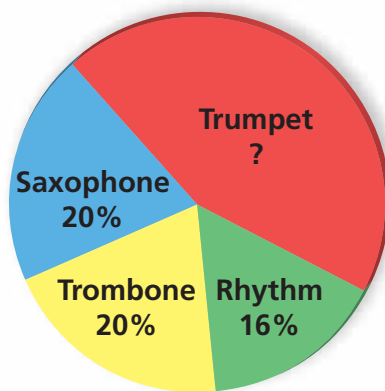
  A. $3300 for 1 year at 4%

  B. $2000 for 1 year at 5.5%

  C. $2500 for 6 months at 8%

  D. $3000 for 18 months at 3%

2. The band instructor made the circle graph below to show the percent of students in each section of the Jazz Band.

Jazz Band Sections

There are 4 students in the rhythm section. What is the number of students in the trumpet section?

  F. 11   **H.** 28

  G. 12   **I.** 44
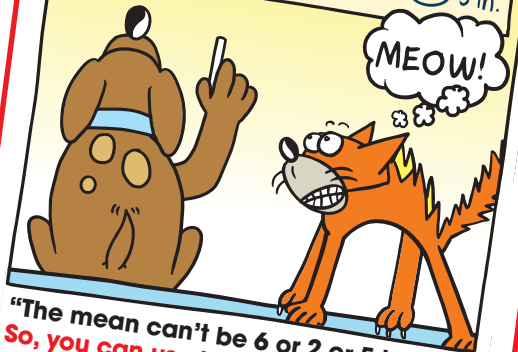
3. One of the leaves is missing in the stem-and-leaf plot.

The median of the data set represented by the stem-and-leaf plot is 38. What is the value of the missing leaf?

Stem	Leaf
1	3 4
2	
3	4 5 7 7 7 ? 9
4	0 1 1 4
5	0 2 3

Key: 1 | 4 represents 14

Test-Taking Strategy

Use Intelligent Guessing

What is the mean length of these hyena fangs: 4 in., 3 in., 3 in., 4 in., 5 in., 5 in.?

Ⓐ 6 in.   Ⓑ $\frac{1}{3}$ ft   Ⓒ 2 in.   Ⓓ 5 in.

MEOW!

"The mean can't be 6 or 2 or 5 inches. So, you can use intelligent guessing to find that the answer is $\frac{1}{3}$ ft, or 4 in."

4. Mario was solving the equation in the box below.

$$3y + 4 + y = 5 - 11$$
$$3y + 4 = -6$$
$$3y = -10$$
$$y = -\frac{10}{3}$$

What should Mario do to correct the error that he made?

A. Divide -6 by 3 to get 2.

B. Add $3y$ and y to get $4y$.

C. Subtract 4 from -6 to get -2.

D. Simplify $3y + 4 + y$ to get $7y$.

5. The president of a service organization made a large bowl of fruit punch for a party. She needs to decide whether to serve the punch in 6-ounce servings or 4-ounce servings. She determined that she could serve 96 guests with 6-ounce servings. How many more guests could she serve with 4-ounce servings than with 6-ounce servings?

F. 144   **H.** 48

G. 64   **I.** 32

6. At the end of the school year, your teacher counted up the number of absences for each student. The results are shown in the histogram below.
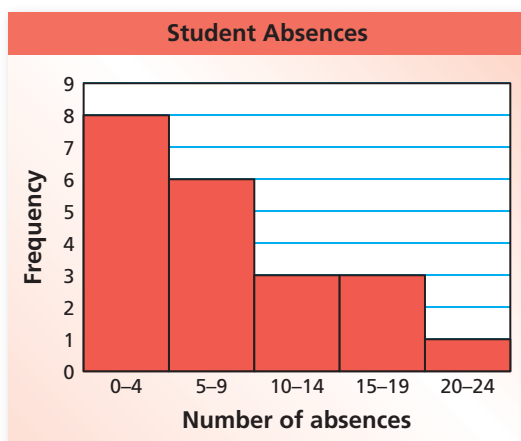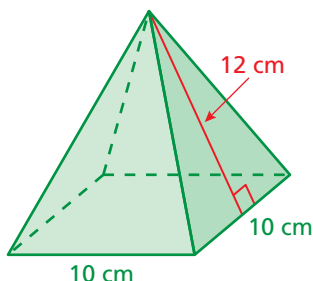
Student Absences

Based on the histogram, how many students had fewer than 10 absences?

**7.** What is the value of the expression below when $a = -6$ and $b = 4$?

$$\frac{|2 - a|}{-|b|}$$

A. -2 **C.** 1

B. -1 **D.** 2

8. A right square pyramid and its dimensions are shown below.

What is the surface area of the pyramid?

F. 160 cm^2 **H.** 340 cm^2

G. 240 cm^2 **I.** 400 cm^2

9. Suppose that the volume of a right rectangular prism is V. The lengths of all the edges of the prism are then doubled. What is the volume of the new prism that is created?

A. $2V$ **C.** $6V$

B. $4V$ **D.** $8V$

10. A stem-and-leaf plot is shown.

Think Solve Explain
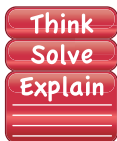
For Parts A–D, explain how the stem-and-leaf plot can help to find each measure. Then find each measure using the stem-and-leaf plot. Show your work and explain your reasoning for each answer.

Part A range

Part B mode

Part C median

Part D mean

Stem	Leaf
4	5 8 8
5	2 7 7 7 8
6	0 1 6 8
7	
8	3 3 4 8 9 9
9	0 8

Key: 5|2 represents 52