

Applied Algebra

Review Ch. 1

Quiz 1.4-1.7

Test tomorrow Ch. 1

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Write an algebraic expression.

11. the product of 5 and n $= 5n = 5 \cdot n$

12. the sum of 2 and three times x

$$2 + 3x$$

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Write a verbal expression for each algebraic expression.

5

$$32 - b$$

↑

6

$$(y \div 4) + 9$$

5 less than b
 $\hat{=}$ $5 - b$
 $\hat{=}$ $b - 5$

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Write an equation for each sentence.

13. Six less than two times y equals 14.

$$6 \quad 2y$$

$$\cancel{6 - 2y} = 14$$

$$\begin{array}{r} 2y + 6 = 14 \\ \quad -6 \quad +6 \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{20}{2}$$

$$y = 10$$

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19. Find the value of $3ac - b$ if $a = 6$, $b = 9$, and $c = 1$.

$$3(6)(1) - (9)$$

$$18 - 9 = 9$$

Name the property shown by each statement. Then simplify.

20. $6 + (7 + b) = (6 + 7) + b$ asso. $13 + b$

21. $2 \cdot c \cdot 10 = 2 \cdot 10 \cdot c$ comm. $20c$

$$a + b = b + a$$

$$a = b$$

$$b = a$$

if $a = b$ and $b = c$ then $a = c$

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Simplify each

26. $4(8 + y)$

28. $10x + 1x$

$$\downarrow$$

$$11x$$

$$8 + y$$

$$8 + y$$

$$8 + y$$

$$8 + y$$

$$32 + 4y$$

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Use the four-step plan to solve each problem.

32. **Finance** Mr. Rockwell deposited \$1000 in an account that pays 2% interest. How much money would he have in the account after ten years?

$$I = p \cdot r \cdot t$$

$$= 1000(0.02)(10)$$

$$= 200$$

$$1000 + 200 = \$1200$$

33. **School** Jamal is typing a three-page report with approximately 400 words per page for school. He thought he could finish typing the report in 2 hours. After $1\frac{1}{2}$ hours, he had finished 2 pages.

- a. How many words are in his paper? 1200
- b. About how many words had Jamal typed in $1\frac{1}{2}$ hours? 800

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• **Lesson 1-6** Collect and organize data using sampling and frequency tables.

Make a frequency table for the data {1, 4, 3, 4, 0, 2, 3, 1, 0, 2, 0, 2, 0, 4, 0, 0, 4, 1, 2}.

Number	Tally	Frequency
0		6
1		3
2		4
3		2
4		4

6
3
4
2
4
19

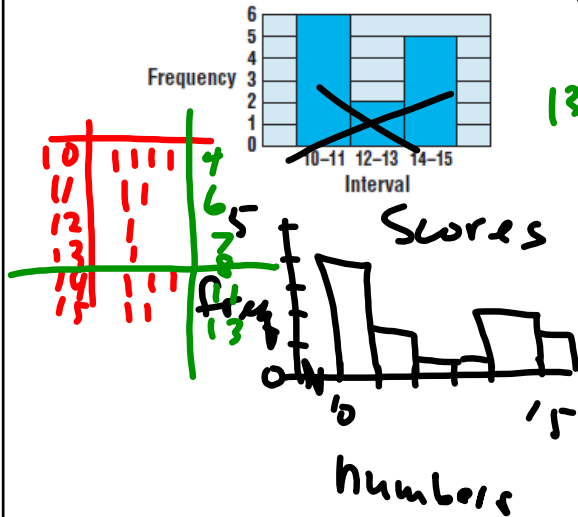
Use the frequency table at the left to answer each question.

- 34. How many numbers are in the sample? 19
- 35. Which number occurs most frequently? 0
- 36. How many times does the number 2 occur? 4
- 37. Make a cumulative frequency table from the data.
- 38. How many times does a number less than 2 occur? 9
- 39. How many times does a number greater than or equal to 2 occur? 10

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- Lesson 1-7 Construct and interpret line graphs, histograms, and stem-and-leaf plots.

Construct a histogram for the data {10, 10, 10, 10, 11, 11, 12, 13, 14, 14, 14, 15, 15}.



Use the histogram at the left to answer each question.

40. How large is each interval? **10**
41. Which interval has the most data? **10-11**
42. How many numbers have a value greater than 11? **7**
43. Make a cumulative histogram from the data.
44. How many numbers are in the sample? **13**
45. How many numbers have a value less than 14? **8**

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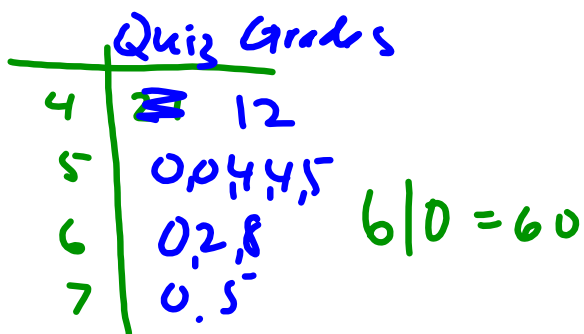
Determine whether each is a good sample. Describe what caused the bias in each poor sample. Explain.

10. Thirty people standing in a movie line are asked to name their favorite actor.
11. Police stop every fifth car at a sobriety checkpoint.

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Your Turn

c. Make a stem-and-leaf plot of the quiz grades below.
54, 55, 60, 42, 41, 75, 50, 68, 62, 54, 70, 50



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