Applied Algebra

Review Ch. 1

Quiz 1.5-1.7

Test Thurs. Ch. 1

~~(MCT upgrade max. 80%)~~

Write an algebraic expression.

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

12. the sum of 2 and three times x

$2 + 3x$

Write a verbal expression for each algebraic expression.

5 $32 - b$

b less than 32

6 $(y \div 4) + 9$

Write an equation for each sentence.

13. Six less than two times y equals 14.

$2y - 6 = 14$

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

$18 - 9 = 9$

Name the property shown by each statement. Then simplify.

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

assoc

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

Comm

Simplify each

26. $4(8 + y)$ $= 4 \cdot 8 + 4 \cdot y$

$32 + 4y$

28. $10x + x$ $= 11x$

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?

$i = p \cdot r \cdot t$

$1000(.02)(10)$

$\$200$

$1000 + 200 = \$1200$

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.

400 400 400

   a. How many words are in his paper?

1200

   b. About how many words had Jamal typed in $1\frac{1}{2}$ hours?

800

- **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

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

34. How many numbers are in the sample?

35. Which number occurs most frequently?

36. How many times does the number 2 occur?

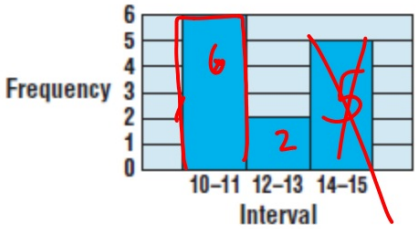
37. ~~Make a cumulative frequency table from the data.~~

38. How many times does a number less than 2 occur?

39. How many times does a number greater than or equal to 2 occur?

- **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?

41. Which interval has the most data?

42. How many numbers have a value greater than 11?

43. ~~Make a cumulative histogram from the data.~~

44. How many numbers are in the sample?

45. How many numbers have a value less than 14?

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.

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

Quiz Grades

4	2 1
5	4 5 0 4 0
6	0 8 2
7	5 0

4|2=42