

Name: _____

Date: _____

Unit 1 Review

I. Write the expression

1. Triple a number subtracted from ten.
2. The difference of twice a number and thirteen.
3. Eight times a number plus five.
4. The quotient of a number and one
5. The sum of quadruple a number and negative four

II. Simplify the expression

6. $-3(2x - 5)$

7. $\frac{30x-10}{5}$

8. $2(x - 4) - 6 + 4x$

9. $6x(4x + 3)$

10. $x(4x + 11)$

III. Write and Simplify the Expressions

11. A fourth of the difference of twelve and eight times a number.

12. Nine times a number subtracted from the same number

13. Ten subtracted the sum of triple a number and the same number

14. The sum of double a number and six is divided by two

15. Seven times the difference of a number and nine.

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IV. Math Magic Trick

16. Create the expression from the following directions AND simplify

a. Write down your age: _____

b. Multiply by 25: _____

c. Add today's date (only the day): _____

d. Multiply by 4: _____

e. Add your shoe size (If it's a half size round to the whole number): _____

f. Subtract four times today's date: _____

g. Answer: _____

h. Simplified Answer: _____

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V. Writing Equations

17. Find the cost of school lunches (adult and student) for three different area schools. Then create a table of values. Also find the number of students and teachers at each school. Write an expression based on the table for each of the following:

Schools	Student	Adult
A PHS	\$3.00	\$4.00
B SCHS	\$5.50	\$6.50
C MHS	\$7.25	\$8.00

- A. Cost of feeding 25 students and 10 adults at PHS, SCHS, and MHS:

a. PHS: _____

b. SCHS: _____

c. MHS: _____

- B. Cost of feeding 61 adults and 75 students at PHS, SCHS, and MHS:

a. PHS: _____

b. SCHS: _____

c. MHS: _____

- C. Create an equation for feeding each of the schools' students and teachers:

a. PHS: _____

b. SCHS: _____

c. MHS: _____

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VI. Solving Real Word Problems

18. Greg went to the Apple Store to purchase gifts for his family. He bought two phone cases for \$23.50 each, three Apple TVs for \$45.00 each and one printer for \$78.98. If sales tax is 9%, what was the total purchase price?

19. Ms. Elliott went shopping at Bloomingdales. She bought two shirts for \$29.90 a piece, one skirt for \$37.89 and three pairs of boots on sale for \$51.25. If sales tax is 7.5%, what was her total purchase price?

VII. Distributive Property and Factoring

i. Distributive Property

20. $2x(4x + 5)$

21. $5(x - 17) + 11$

22. $13x + 7 - 11x + 17$

23. $28r + 3(2r + 15)$

24. $-(10x - 4) + 14$

ii. Factoring

25. $2x - 10$

26. $14x + 7$

27. $20x + 25x$

28. $100 - 20x$