

General Algebra II Worksheet #2 Unit 1 Selected Solutions

Solve each of the following equations. Show your process steps neatly organized.

5. $15x + 53 = 9x + 89$

$$6x = 36$$

$$x = 6$$

13. $9(2x - 3) - 7(2x + 3) = 0$

$$18x - 27 - 14x - 21 = 0$$

$$4x - 48 = 0$$

$$4x = 48$$

$$x = 12$$

Solve each of the following word problems algebraically. Show your process steps neatly organized. (One variable solutions please.)

19. The cost of a burger is 9 cents more than twice the cost of a soda. The cost of a hot dog is 24 cents more than the cost of a soda. If 3 burgers, 7 hotdogs and 10 sodas cost a total of \$14.60, then what is the cost of each item?

$$3(2x + 9) + 7(x + 24) + 10x = 1460$$

cost each

$$6x + 27 + 7x + 168 + 10x = 1460$$

soda: x cents

$$23x + 195 = 1460$$

burger: $2x + 9$ cents

$$23x = 1265$$

hot dog: $x + 24$ cents

$$x = 55$$

$$2x + 9 = 119$$

$$x + 24 = 79$$

A soda costs 55¢, a burger costs \$1.19, and a hot dog costs 79¢.