Practice 8.7

Name(s)_____

(8.7a) Determine whether the terms are like or unlike. If alike as add them.

    1) $2xy^3z, -6xy^2$

    2)   5, 9, -13

Simplify the expression by combining like terms.

    3)   9x - x - 2x - x

    4) $4y^7 - 4y^7$

Remove parentheses and simplify the expression.

    5)   1 + 3(10 - 7m)

    6) $-\frac{3}{4}(-8y - 8x + 4z)$

    7)   [4(x - 5) - 6] + [4(x - 1) + 4]

    8) $-\frac{3}{5}(z - 16) - \frac{1}{10}z$

(8.7b) Perform the indicated operation. Don't forget to simplify if possible.

    9)   Add 7x - 2 to 2x - 3

    10)   Subtract 7x + 2 from 4x - 5

Write the phrase as an algebraic expression and simplify if possible. Let x represent the unknown number.

    11)   The product of 11 and a number, added to 17.

    12)   The product of -18 and the sum of a number and 6.

    13)   Five times a number, increased by nine.

    14)   One-half a number, minus ten, plus two times the number.

    15)   The sum of four times a number and 9, and six times a number and 3.

1) unlike
2) like
3) 5x
4) $11y^7$
5) -21m + 31
6) 6y + 6x - 3z
7) 8x - 26
8) $-\dfrac{7}{10}z + \dfrac{48}{5}$
9) 9x - 5
10) -3x - 7
11) 17 + 11x
12) -18(x + 6)
13) 5x + 9
14) $\dfrac{5}{2}x - 10$
15) 10x + 12