Expressions

April 3, 2017 10:07 AM

1. Represent the following with an expression. Use n as your variable.

a) three times a number squared: $3n^2$

b) one quarter of a number: $\frac{1}{4}n$ or $0.25n$

c) twelve less than a number cubed: $n^3 - 12$

d) the opposite of six times a number: $-6n$

e) seven times the sum of a number increased by four:

$7(n+4)$

2. Distribute the following:

a) $5(x+2) = 5x+10$

you have 5 of $x+2$

$x+2$ $x+2$ $x+2$ $x+2$ $x+2$

b) $4(f-6) = 4f-24$

c) $-2(d+3) = -2d-6$

d) $-7(y-2) = -7y+14$

3. Simplify by Collecting Like Terms:

a) $3n+8n+6+2$

$11n+8$

b) $-5x-3y+2y-x$

$-6x-y$

$11n + 8$ $\quad -6x - y$

c) $12 + 15n - 9 - 6n$ $\quad$ d) $11x^2 - 12x - 20x^2$

$9n + 3$ $\quad -9x^2 - 12x$

e) $6d + 3(d - 10) + 3$

$6d + 3d - 30 + 3$

$9d - 27$

4. If $n = 6$, simplify $3n - 5$

6

$3(6) - 5$

$18 - 5$ (13)

5. If $n = -3$ and $m = 4$, simplify $2m - 4n$

$2(4) - 4(-3)$

$8 + 12$ (20)

6. If $n = 5$, simplify $2n^2 - 3n + 8$

$2(5)^2 - 3(5) + 8$

5×5

$2(25) - 3(5) + 8$

$50 - 15 + 8$

$35 + 8$ (43)

BEDMAS: First, Second, Last

7. If $n = 4$, simplify $3n^2 + 5n - 11$

$3(4)^2 + 5(4) - 11$

4×4

$3(16) + 5(4) - 11$

$48 + 20 - 11$

$68 - 11$ (57)