

**Function Operations Decoder**

9	14	1	15	16	16	5	2	16	7		
18	6	12	10	11	13	17	16	8	11	15	1
3	17	13	9	18	15	3	12	13	5	14	18
7	15	12	17	13	17	2	2	4	1	18	9

--Aristotle

$$a(x) = -9x + 5$$

$$f(x) = 10x + 7$$

$$j(x) = 2x^2 - 8$$

$$b(x) = 4x - 12$$

$$g(x) = -2x - 11$$

$$k(x) = -5x^2 + 9x + 5$$

$$c(x) = -2x^2 + 6x - 7$$

$$h(x) = 3x^2 - 7x + 6$$

$$m(x) = 8x^2 - x - 4$$

**Simplify each of the following functions.**

1.  $a(x) + g(x)$

2.  $j(x) + k(x)$

3.  $h(x) + m(x)$

4.  $a(x) + m(x)$

5.  $f(x) + h(x) + k(x)$

6.  $c(x) - a(x)$

7.  $b(x) - f(x)$

8.  $h(x) - k(x)$

9.  $j(x) - m(x)$

10.  $g(x) - b(x)$

11.  $b(x) * a(x)$

12.  $c(x) * f(x)$

13.  $g(x) * j(x)$

14.  $f(x) * g(x)$

15.  $b(x) * g(x)$

16.  $f(x) \div g(x)$

17.  $b(x) \div a(x)$

18.  $g(x) \div b(x)$

A.  $-36x + 128x - 60$

B.  $11x^2 - 8x + 2$

C.  $-6x + 1$

D.  $-2x^2 + 15x - 12$

E.  $-11x - 6$

E.  $\frac{-2x-11}{4x-12}$

F.  $-6x - 19$

H.  $-20x^2 - 124x - 77$

I.  $\frac{4x-12}{-9x+5}$

N.  $8x^2 - 16x + 1$

O.  $\frac{10x+7}{-2x-11}$

R.  $-8x^2 - 20x + 132$

S.  $-3x^2 + 9x - 3$

T.  $-2x^2 + 12x + 18$

T.  $-6x^2 + x - 4$

T.  $-4x^3 - 22x^2 + 16x + 88$

U.  $-20x^3 + 46x^2 - 28x - 49$

W.  $8x^2 - 10x + 1$