

Combine like terms:

$-7 + -8 = -15$	$-7 + -5 = -12$	$5a + 3a = 8a$	$4\sqrt{3} + 2\sqrt{3} = 6\sqrt{3}$
$3 - 8 = -5$	$-4 + 8 = 4$	$4b + 2a = 4b + 2a$	$9\sqrt{2} - 2\sqrt{2} = 7\sqrt{2}$
$6 - -7 = 13$	$3 + -7 = -4$	$3c^2 + 6c = 3c^2 + 6c$	$5\sqrt{2} + 3\sqrt{5} = 5\sqrt{2} + 3\sqrt{5}$
$-7 + 9 = 2$	$1 - 4 = -3$	$7d - d = 6d$	$7\sqrt{3} - \sqrt{3} = 6\sqrt{3}$
$-6 - -5 = -1$	$-7 - -5 = -2$	$9e - 5 = 9e - 5$	$6\sqrt{7} - 2\sqrt{5} = 6\sqrt{7} - 2\sqrt{5}$
$3 + -6 = -3$	$4 - -1 = 5$	$6f + f = 7f$	
$-4 + -8 = -12$	$4 - 8 = -4$	$3g - 8g = -5g$	
$8 - 9 = -1$	$-6 + -4 = -10$	$7b + 3c = 7b + 3c$	
$9 + -6 = 3$	$4 - 6 = -2$	$5a - 5 = 5a - 5$	
$7 - -3 = 10$	$4 + -2 = 2$	$4c - 4c = 0$	
$-9 - -6 = -3$	$9 - -6 = 15$	$6d^2 + 3d^2 = 9d^2$	
$-9 + 8 = -1$	$-5 + 2 = -3$	$8e^2 - 4e = 8e^2 - 4e$	
$5 + -1 = 4$	$-8 - -2 = -6$	$9d - 9f = 9d - 9f$	
$-5 + -4 = -9$	$-2 + -8 = -10$		
$3 + -9 = -6$	$7 - 9 = -2$		
$-9 - -2 = -7$	$9 + -2 = 7$		
$4 - -8 = 12$	$8 - -9 = 17$		
$5 + -2 = 3$	$-6 + 2 = -4$		
$0 - 4 = -4$	$-8 - -7 = -1$		
$-8 - -8 = 0$	$-9 + -7 = -16$		

Multiply:

$2(4a + 3b - 2c)$   
 $8a + 6b - 4c$   
 $2a(3a - 2b + c)$   
 $6a^2 - 4ab + 2ac$   
 $3b(a^2 + 6b^4 - 2c)$   
 $3a^2b + 18b^5 - 6bc$   
 $-5(2d + 6e^2 - f)$   
 $-10d - 30e^2 + 5f$   
 $-(5a - 4b + 3c)$   
 $-5a + 4b - 3c$   
 $6ab^3(-3a^2b + 4bc - 5)$   
 $-18a^3b^4 + 24ab^4c - 30ab^3$   
 $(7 - 3ab^2 + 4a^4)5c$   
 $35c - 15ab^2c + 20a^4c$

Multiply:

$(x + 2)(x + 3) =$   
 $x^2 + 5x + 6$   
 $(x - 2)(x - 3) =$   
 $x^2 - 5x + 6$   
 $(x + 4)(x - 1) =$   
 $x^2 + 3x - 4$   
 $(x - 5)(x + 2) =$   
 $x^2 - 3x - 12$   
 $(x + 6)(x - 6) =$   
 $x^2 - 36$   
 $(x + 7)(x - 3) =$   
 $x^2 + 4x - 21$   
 $(x - 4)(x - 5) =$   
 $x^2 - 9x + 20$   
 $(x + 9)(x - 9) =$   
 $x^2 - 81$   
 $(x + 1)(x - 8) =$   
 $x^2 - 7x - 8$   
 $(x + 6)(x + 4) =$   
 $x^2 + 10x + 24$

Simplify:

$\frac{a^5}{a^2} = a^3$        $\frac{a^4}{a^4} = 1$        $\frac{a^3}{a^7} = \frac{1}{a^4}$   
 $\frac{a + 4}{a} = \frac{a + 4}{a}$        $\frac{5a}{a} = 5$        $\frac{6a}{3} = 2a$

Factor:

$4a + 6b - 8c =$   
 $2(2a + 3b - 4c)$   
 $6a - 9a^2b + 12ab^2 =$   
 $3a(2 - 3ab + 4b^2)$   
 $12a^3c + 16a^4 - 4a^2 =$   
 $4a^2(3ac + 4a^2 - 1)$   
 $x^2 + 7x + 12 =$   
 $(x + 3)(x + 4)$   
 $x^2 + 8x + 12 =$   
 $(x + 2)(x + 6)$   
 $x^2 - 13x + 12 =$   
 $(x - 1)(x - 12)$   
 $x^2 - 6x - 16 =$   
 $(x - 8)(x + 2)$   
 $x^2 + 15x - 16 =$   
 $(x + 16)(x - 1)$   
 $x^2 - 49 =$   
 $(x + 7)(x - 7)$   
 $36 - x^2 =$   
 $(6 + x)(6 - x)$