

1. $y^2 - 8x - 11y^2$
2. $5(n - 8) + 2(n + 6)$
3. $2(x - y) - 7(y - x)$
4. $3(a + b) - 2(a + ab)$
5. $4(m^2 - m) - (m - m^2)$
6. $(x^2 + x - 3) + (x^2 - 4x - 3)$
7. $(x^4 - 9x^2 - 3) - (x^4 - 2x + 8)$
8. $(x - 3)(x + 2)$
9. $(3x - 4)(2x^2 - 3x - 7)$
10. $(4x - 5y)^2$

1. $y^2 - 8x - 11y^2$

$$\boxed{-10y^2 - 8x}$$

2. $5(n-8) + 2(n+6)$

$$5n - 40 + 2n + 12$$

$$\boxed{7n - 28}$$

3. $2(x-y) - 7(y-x)$

$$2x - 2y - 7y + 7x$$

$$\boxed{9x - 9y}$$

4. $3(a+b) - 2(a+ab)$

$$3a + 3b - 2a - 2ab$$

$$a + 3b - 2ab$$

5. $4(m^2 - m) - (m - m^2)$ Remember, if there is just a negative in front of a parenthesis, put a negative one in front of it.

$$4(m^2 - m) - 1(m - m^2)$$

$$4m^2 - 4m - m + m^2$$

$$\boxed{5m^2 - 5m}$$

6. $(x^2 + x - 3) + (x^2 - 4x - 3)$ We don't need the parenthesis here since there's nothing in front of them except plus the sign.

$$x^2 + x - 3 + x^2 - 4x - 3$$

$$x^2 + x - 3 + x^2 - 4x - 3$$

$$\boxed{2x^2 - 3x - 6}$$

7. $(x^4 - 9x^2 - 3) - (x^4 - 2x + 8)$

$$(x^4 - 9x^2 - 3) - 1(x^4 - 2x + 8)$$
 Put a negative one in place of negative and distribute it through the terms

$$x^4 - 9x^2 - 3 - x^4 + 2x - 8$$

$$x^4 - 9x^2 - 3 - x^4 + 2x - 8$$

Combine your like terms

$$\boxed{-9x^2 + 2x - 11}$$

8. $(x-3)(x+2)$

$$x(x+2) - 3(x+2)$$

$$x^2 + 2x - 3x - 6$$

$$\boxed{x^2 - x - 6}$$

We will multiply each term in first parenthesis by each term in the second set.

9. $(3x-4)(2x^2-3x-7)$ We will do the same as above

$$3x(2x^2-3x-7)-4(2x^2-3x-7)$$

$$6x^3-9x^2-21x-8x^2+12x+28$$

$$6x^3-9x^2-21x-8x^2+12x+28$$

$$\boxed{6x^3-17x^2-9x+28}$$

10. $(4x-5y)^2$ You have to write this twice and then multiply

$$(4x-5y)(4x-5y)$$

$$4x(4x-5y)-5y(4x-5y)$$

$$16x^2-20xy-20xy+25y^2$$

$$\boxed{16x^2-40xy+25y^2}$$