

Then, indicate the expressions with similar variables and add them all as follows,

$$\begin{array}{r} -7x^2 + 4x - 1 - x^2 - 1 + 6x^2 + 4x \\ -2x^2 + 4x - 1 - 1 + 4x \end{array}$$

$$\begin{array}{r} -2x^2 + 4x - 1 - 1 + 4x \\ -2x^2 + 8x - 1 - 1 \end{array}$$

$$\begin{array}{r} -2x^2 + 8x - 1 - 1 \\ -2x^2 + 8x - 2 \end{array}$$

Therefore, the sum of the given algebraic expressions is $-2x^2 + 8x - 2$.

4. Find the sum of the following expressions: $(6x - 4x^2)$, $(1 + x)$, and $(8x^2 - 1)$.

Solution:

Add up all the algebraic expressions as follows,

$$(6x - 4x^2) + (1 + x) + (8x^2 - 1)$$

Then, indicate the expressions with similar variables and add them all as follows,

$$\begin{array}{r} 6x - 4x^2 + 1 + x + 8x^2 - 1 \\ 4x^2 + 6x + 1 + x - 1 \end{array}$$

$$\begin{array}{r} 4x^2 + 6x + 1 + x - 1 \\ 4x^2 + 7x + 1 - 1 \end{array}$$

$$\begin{array}{r} 4x^2 + 7x + 1 - 1 \\ 4x^2 + 7x + 0 \end{array}$$

Therefore, the sum of the given algebraic expressions is $4x^2 + 7x$.