

EXPRESSIONS IN ALGEBRA

For each of the following expressions, write down the order of calculation and then substitute in the given value of x .

The first question has been done as an example.

1) $2(x - 3)^2 + 15.$

{Substitute $x = 5$ }

Put $x = 5,$

- i) Start $x,$
- ii) subtract 3,
- iii) square,
- iv) multiply 2,
- v) add 15.

- i) Start 5,
- ii) 2,
- iii) 4,
- iv) 8,
- v) 23 = ANSWER.

2) $3(x + 2)^2 + 20.$
{Substitute $x = 3$ }

3) $2(x^2 - 1)^2 + 6.$
{Substitute $x = 2$ }

4) $5(2x^2 - 1) + 10.$
{Substitute $x = 2$ }

5) $2(x - 2)^3 - 12.$
{Substitute $x = 5$ }

6) $4x^3 + 10.$
{Substitute $x = 2$ }

7) $2(2x)^2 + 8.$
{Substitute $x = 5$ }

8) $2(x^2 + 1)^2 + 5.$
{Substitute $x = 3$ }

9) $3(2x^3 + 1)^2 - 10.$
{Substitute $x = 1$ }

10) $3((x^2 - 13)^2 + 1)^2 + 5.$
{Substitute $x = 4$ }

ANSWERS.

- 2) 95.
- 3) 24.
- 4) 45.
- 5) 42.
- 6) 42.
- 7) 208.
- 8) 205.
- 9) 17.
- 10) 305.