

Substituting values into expressions

WHAT THIS LESSON TEACHES

A letter stands for a number we can choose or work out. Replace the letter with the given number then calculate.

- In $2n + 3$ replace n with 5 to get 2 times 5 plus 3 equals 13.
- For $4n + 1$ with n equals 3 multiply 4 times 3 first then add 1.

MODEL THIS ON THE BOARD

WORK OUT $2N + 3$ WHEN $N = 4$

- 1 Write the expression with the value shown: $2n + 3$ when $n = 4$
- 2 Replace the letter n with 4 to get 2 times 4 + 3
- 3 Do the multiplication first: $8 + 3$
- 4 Add the numbers: 11

ANSWER KEY

Scaffold: visual check on the page

Q1: 19

Q2: 37

Q3: 13

Q4: 9

Q5: 17

Q6: 36

a) **Always** — The same number put into the same rule always produces the same output.

b) **Sometimes** — Some expressions may give the same output for two different inputs.

c) **Always** — The order of operations requires multiplication before addition.

d) **Always** — The rule allows any chosen number within the lesson range.

EXTENSION SHEET · STRETCH ANSWERS

S1: 20