

Name ..... Date ...../...../.....

# Substitution

Follow these steps. Swap roles for each expression.

- Together, represent the expression using algebra counters and Numicon pieces.
- Child A: roll a dice to give a value for each letter.
- Child B: replace the counters with the correct Numicon pieces.
- Separately, both work out the total value of the expression.
- Compare your answers.

|     | Expression    | Values of letters | Total value of the expression |
|-----|---------------|-------------------|-------------------------------|
| 1.  | $3a + 10$     | $a =$             |                               |
| 2.  | $5b - 3$      | $b =$             |                               |
| 3.  | $a + c$       | $a =$ $c =$       |                               |
| 4.  | $b - d$       | $b =$ $d =$       |                               |
| 5.  | $3x + y$      | $x =$ $y =$       |                               |
| 6.  | $4x + 2y + z$ | $x =$ $y =$ $z =$ |                               |
| 7.  | $7a - 3b$     | $a =$ $b =$       |                               |
| 8.  | $p \times q$  | $p =$ $q =$       |                               |
| 9.  | $a \times a$  | $a =$             |                               |
| 10. | $y \div 2$    | $y =$             |                               |
| 11. | $30 \div e$   | $e =$             |                               |