Algebraic expressions

Name: _____ Date: _____



Mr Boston says: 3n is 3 × n, so if n = 4, 3n is 12, not 34!

A. Writing expressions

1 Write an expression for “3 more than n”.

Answer: _____

2 Write an expression for “n multiplied by 5”.

Answer: _____

3 Write an expression for “7 less than n”.

Answer: _____

4 Write an expression for “n divided by 4”.

Answer: _____

5 Write an expression for “double n, then add 1”.

Answer: _____

6 Write an expression for “n squared”.

Answer: _____

B. Substitution

7 Find 4n + 3 when n = 2.

Answer: _____

8 Find 5n − 8 when n = 10.

Answer: _____

9 Find $n^2 + 2$ when n = 2.

Answer: _____

10 Find 3(n + 4) when n = 2.

Answer: _____

11 Find 20 − 2n when n = −2.

Answer: _____

12 Find n/2 + 6 when n = 6.

Answer: _____

C. Two letters and problems

13 If a = 3 and b = −2, find 4a + 5b.

Answer: _____

14 If x = 5 and y = 4, find $x^2 - 2y$.

Answer: _____

15 Tickets cost £t each. Write an expression for the cost of 6 tickets and a £2 booking fee.

Answer: _____

Answers for grown-ups

Algebraic expressions

1. Write an expression for “3 more than n”. → **n + 3**
2. Write an expression for “n multiplied by 5”. → **5n**
3. Write an expression for “7 less than n”. → **n – 7**
4. Write an expression for “n divided by 4”. → **n/4**
5. Write an expression for “double n, then add 1”. → **2n + 1**
6. Write an expression for “n squared”. → **n^2**
7. Find 4n + 3 when n = 2. → **11**
8. Find 5n – 8 when n = 10. → **42**
9. Find n^2 + 2 when n = 2. → **6**
10. Find 3(n + 4) when n = 2. → **18**
11. Find 20 – 2n when n = –2. → **24**
12. Find n/2 + 6 when n = 6. → **9**
13. If a = 3 and b = –2, find 4a + 5b. → **2**
14. If x = 5 and y = 4, find x^2 – 2y. → **17**
15. Tickets cost £t each. Write an expression for the cost of 6 tickets and a £2 booking fee. → **6t + 2 (pounds)**