Worksheet | Algebra

Writing expressions with operations and brackets

Name: _____ Date: _____

8 questions | 19 marks | Show your working.

Use exact values where possible. Simplify fractions and state units when required.

1. In $x + 7$, name the variable and the constant term. Is $x + 7$ an expression or an equation? Explain briefly. [3 marks]

2. Let p represent a number. Write expressions for [2 marks]

(a) eight more than p

(b) subtract 6 from p.

3. Rewrite using usual algebra notation: [3 marks]

(a) $1 \times x$

(b) $5 \times t$

(c) $n \div 4$.

4. Write expressions for [2 marks]

(a) divide a by 5

(b) divide 5 by a. Assume $a \neq 0$.

5. Write expressions for [2 marks]

(a) three times the sum of n and 4

(b) four more than three times n.

6. Each of four boxes holds b blue tokens and 2 red tokens. Write an expression for the total number of tokens in all four boxes. Explain your brackets. [2 marks]

7. A ribbon is m centimetres long, where $m > 9$. Cut off 9 centimetres, then divide the remaining ribbon into three equal pieces. Write an expression for the length of one piece. [2 marks]

8. A shopper buys x notebooks at 3 dollars each and y pens at 2 dollars each. The total cost is no more than 20 dollars. Write an expression for the change from 20 dollars, showing how you formed it. [3 marks]