

Max's Magical Maths Mystery

Learning objective: To understand simple algebraic thinking by using symbols and letters to represent unknown numbers.

Max the monkey is organising his fruit shop. He uses letters to stand for numbers he doesn't know yet. Help him solve these puzzles by finding the value of the missing symbols.

Max has a basket of fruit. He knows that a bunch of bananas plus an apple equals £5. He uses the letter 'b' for bananas and 'a' for an apple. His equation looks like this: $b + a = £5$. If he knows the bananas cost £3, he can work out the value of the apple by subtracting the bananas from the total. Max loves using maths to keep his shop tidy!

Word bank: Algebra · Variable · Equation · Symbol · Value · Calculate

1. If $b + a = £5$ and the bananas (b) cost £3, what is the value of the apple (a)? Show your working out. (2 marks)

2. Max has a bag of nuts (n) and a pear (p). The total cost is £7. If $n = £4$, write an equation to show this and solve for p. (3 marks)

3. Max says: 'If $x + 5 = 12$, then x must be 7.' Is Max correct? Explain how you know. (2 marks)

4. Find the missing value: If $10 - y = 4$, what is the value of y? (1 mark)

5. Max buys two identical oranges (o). The total cost is £2. Write an equation using 'o' to represent this and find the price of one orange. (2 marks)

Draw: Draw a picture of Max's fruit shop shelf. Above one item, draw a card that says 'x' and write what you think the price of that item might be.



Extension challenge: Create your own 'Algebra Riddle' for a partner. Choose a secret number, represent it with a letter, and write an equation for them to solve. For example: 'My secret number 'm' plus 10 equals 25. What is m?'