Year 8 Expressions and Equations – Challenge

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Year 8 · Maths · Expressions, Formulae and Equations · Level 3 Challenge · 8 questions

Name _____ **Date** _____

A. Think like a mathematician

1. Ivo says $6x(x + 9) = 6x^2 + 9$. Spot the mistake and give the correct expansion.

Answer _____

2. Gus says $5x(x + 6) = 5x^2 + 6$. Spot the mistake and give the correct expansion.

Answer _____

3. To solve $7x + 8 = 4x + 26$, Chen writes $11x + 8 = 26$. Explain the mistake and solve the equation.

Answer _____

4. Jade says $6a^2 \div 2a = 3a$. Is Jade right? Explain.

Answer _____

5. Amir says $3x(x + 1) = 3x^2 + 3x$ for every value of x. Is Amir right? Explain.

Answer _____

6. Gus says the equation $2x + 5 = 2x + 7$ has no solution. Is Gus right? Explain.

Answer _____

7. A rectangle is 3 cm longer than it is wide. Its perimeter is 42 cm. Write an equation for the width w and solve it.

Answer _____

8. A parent is 3 times as old as their child. In 6 years' time their ages will add up to 52. Write an equation for the child's age x now, and solve it.

Answer _____