

Of course, here are 10 algebra questions based on the provided material, suitable for a Grade 9 level.

Algebra Practice Questions

1. Solve the following simultaneous equations:

$$3x + 2y = 4$$

$$2x - y = 5$$

2. Express as a single fraction in its simplest form:

$$\frac{x^2 - 4x + 3}{x^2 - 9} \div \frac{2x - 2}{x + 3}$$

3. Solve the equation $3x^2 - 7x - 5 = 0$. [cite_start]Give your answers correct to 2 decimal places. [cite: 687]
4. Make x the subject of the formula:

$$y = \frac{2x + 1}{x - 3}$$

5. The sum of the ages of a father and his son is 58 years. In 4 years' time, the father will be twice as old as his son. Find their present ages.
6. Simplify the expression $(16x^8)^{\frac{3}{4}} \times 2x^{-3}$.
7. The time, t , required to complete a job is inversely proportional to the square of the number of workers, w . If it takes 3 hours for 4 workers to complete the job, how long would it take for 6 workers?
8. Solve the equation:

$$\frac{5}{x + 2} - \frac{3}{x} = 1$$

9. Solve the inequality and represent the solution on a number line:

$$-5 \leq 3x - 2 < 7$$

10. A rectangular garden has a length of $(x + 4)$ meters and a width of x meters. The length of the diagonal is 12 meters. Form a quadratic equation and solve it to find the width of the garden. Give your answer correct to 3 significant figures.