Year 9 Equations and Inequalities – Developing

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Year 9 · Maths · Equations, Formulae and Inequalities · Level 2 Developing · 10 questions

Name _____ **Date** _____

A. Use equations and inequalities

1. A phone plan costs $22 a month plus $6 for each gigabyte of data. Write a formula for the cost C dollars of a month in which g gigabytes are used.

Answer _____

2. A cuboid has a square base with sides of b cm and a height of 8 cm. Write a formula for its volume V cm^3.

Answer _____

3. A rectangle is (2x + 6) cm long and (x − 1) cm wide. Its perimeter is 46 cm. Write an equation and find x.

Answer _____

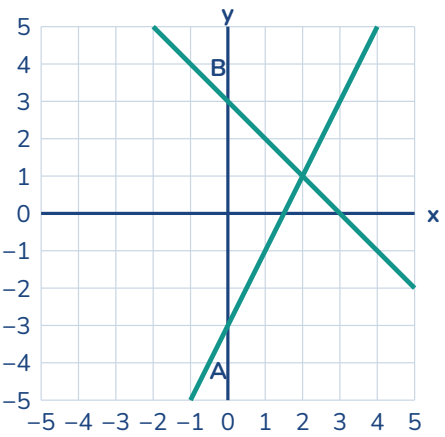
4. A rope 33 m long is cut into 11 equal pieces, each (x + 1) m long. Write an equation and find x.

Answer _____

5. 3 adult tickets and 2 child tickets cost $47. 1 adult ticket and 1 child tickets cost $17. Find the cost of an adult ticket and of a child ticket.

Answer _____

6. Line A is y = 2x − 3 and line B is x + y = 3. Use the graph to solve these simultaneous equations.



Answer _____

7. A rectangle has sides of (x + 5) cm and 7 cm. Its perimeter must be less than 43 cm. Write an inequality and find the largest whole-number value of x.

Answer _____

8. Solve 40/x = 4.

Answer _____

9. Solve the inequality $6 - 5x < -24$.

Answer _____

10. Lina solves $7 - 4x > 15$ and writes $x > -2$. Explain the mistake and give the correct answer.

Answer _____