

- 1 (a) Sketch the graph of  $y = |4x - 2|$ .

[1]

- (b) Solve the inequality  $1 + 3x < |4x - 2|$ .

[4]

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- 1 (a) Sketch the graph of  $y = |x - 2|$ .

[1]

- (b) Solve the inequality  $|x - 2| < 3x - 4$ .

[3]

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- 1 (a) Sketch the graph of  $y = |2x + 1|$ .

[1]

- (b) Solve the inequality  $3x + 5 < |2x + 1|$ .

[3]

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- 2 (a) Sketch the graph of  $y = |2x - 3|$ .

[1]

- (b) Solve the inequality  $|2x - 3| < 3x + 2$ .

[3]

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- 2 (a) Sketch the graph of  $y = |2x + 3|$ .

[1]

- (b) Solve the inequality  $3x + 8 > |2x + 3|$ .

[3]

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**1** Solve the inequality  $|5x - 3| < 2|3x - 7|$ .

[4]

[illegible]

**1** Solve the inequality  $|2x - 1| < 3|x + 1|$ .

[4]

[illegible]

**1** Solve the inequality  $|2x - 1| > 3|x + 2|$ .

[4]

[illegible]



**1** Solve the inequality  $2|3x - 1| < |x + 1|$ .

[4]

[illegible]

**1** Solve the inequality  $|2x + 3| > 3|x + 2|$ .

[4]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

**1** Solve the inequality  $2 - 5x > 2|x - 3|$ .

[4]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

- 2** Solve the inequality  $|3x - a| > 2|x + 2a|$ , where  $a$  is a positive constant. [4]

This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

- 1** Find, in terms of  $a$ , the set of values of  $x$  satisfying the inequality

$$2|3x + a| < |2x + 3a|,$$

where  $a$  is a positive constant.

[4]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.

- 1 Find the set of values of  $x$  satisfying the inequality  $|2^{x+1} - 2| < 0.5$ , giving your answer to 3 significant figures. [4]

This image shows a full page of primary-ruled paper. It features approximately 20 horizontal dotted lines spaced evenly down the page, providing a guide for handwriting practice. The paper is otherwise blank, with no margins, text, or other markings.

- 1** Solve the equation  $4|5^x - 1| = 5^x$ , giving your answers correct to 3 decimal places. [4]

This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.