Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Revision for this topic

www.corbettmaths.com/more/further-maths/
1. Solve the inequality \( \frac{2 - 5x}{3} > -4 \)

2. Write down the largest integer that satisfies \( \frac{10 - 3x}{9} > 15 \)
3. Write down all the integer solutions to

\[-9 < \frac{x}{4} - 1 < -8\]

4. Find the range of values of \(x\) that satisfies both

\[3(x + 2) \leq 30 \quad \text{and} \quad 4x + 3 > 21\]
5. Solve the inequality

\[ 8(x - 2) - 3(1 - x) \leq 9(x + 2) + 1 \]

6. \(-5 < a < -1\) and \(-2 < b < -1\)

Write down an inequality for each of the following

(a) \( ab \)

(b) \( b^2 \)
7. \(-1 \leq c \leq 10\) and \(-4 \leq d \leq -2\)

Write down an inequality for each of the following

(a) \(d - c\)

(b) \(c^2\)

(c) \(\frac{c}{d}\)

(d) \((c + d)^2\)
8. Solve \( x^2 \geq 36 \)

9. Solve the inequality \( x^2 - 13x + 22 < 0 \)

10. Solve the inequality \( x^2 + 9x + 18 \geq 0 \)
11. Solve the inequality \( x^2 + 3x - 4 > 0 \)

12. Solve the inequality \( x^2 - 4x - 32 \leq 0 \)

13. Solve the inequality \( -x^2 + 3x + 10 > 0 \)
14. Solve the inequality \( 5x^2 + 7x + 2 > 0 \)

15. Solve the inequality \( 3x^2 + 8x - 3 \leq 0 \)

16. Solve the inequality \( 4x^2 - 11x + 6 < 0 \)
17. Solve the inequality \( x^2 + 6x + 3 < 0 \)

Leave your answer in surd form.

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(4)

18. Solve the inequality \( (2x + 5)^2 - 3x(x + 2) > 0 \)

\[ \text{ } \]

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