



Scan for the solutions

Name: _____

Date: _____

Score: _____ / 66

1 Solve $x^2 - 5x - 14 > 0$

(3 marks)

Answer _____

2 Solve $x^2 + 2x - 15 \leq 0$

Write your answer in set notation.

(3 marks)

Answer _____

3 Solve $(x + 2)(x - 5) < 0$

(2 marks)

Answer _____

4 Solve $(x - 3)(x + 7) \geq 0$

(2 marks)

Answer _____

5 The graph of $y = x^2 - 3x - 10$ is a U-shaped curve.

a. Factorise $x^2 - 3x - 10$ and write down where the curve crosses the x -axis.

b. Use a sketch of the curve to solve $x^2 - 3x - 10 \geq 0$.

(4 marks)

Answer _____

6 Solve $x^2 - 9x + 18 < 0$

(3 marks)

Answer _____

7 Solve $x^2 + 3x - 28 \geq 0$

(3 marks)

Answer _____

8 Solve $x^2 + 12 < 7x$

(4 marks)

Answer _____

9 n is an integer such that $n^2 - n - 6 < 0$
Write down all the possible values of n .

(3 marks)

Answer _____

10 n is an integer such that
 $n^2 - 2n - 15 \leq 0$ and $3n + 1 > 4$
Find all the possible values of n .

(5 marks)

Answer _____

11 Solve

$$5x - 4 > 2x + 8 \text{ and } x^2 - 10x + 21 < 0$$

Give your answer as a single inequality.

(5 marks)

Answer _____

12 Solve $3 < x^2 - 6 \leq 19$

(5 marks)

Answer _____

13 Solve $2x^2 - x - 15 < 0$

(4 marks)

Answer _____

14 Solve $6x^2 - 7x - 5 > 0$

(4 marks)

Answer _____

15 Solve $2x^2 + 5x - 3 \leq 0$

(5 marks)

Answer _____

16 Solve

$$x^2 - x - 20 \leq 0 \text{ and } x^2 - 4 > 0$$

(5 marks)

Answer _____

17 A rectangular allotment bed has length $(x + 7)$ metres and width $(x - 2)$ metres, where $x > 2$.

The area of the bed is less than 90 m^2 .

a. Show that $x^2 + 5x - 104 < 0$

b. Find the range of possible values of x .

(6 marks)

Answer _____

End of questions | Total 66 marks