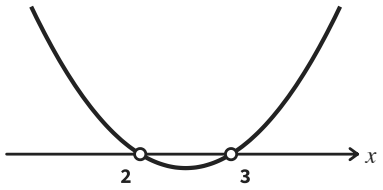
Quadratic Inequalities

1

Solve $x^2 - 5x + 6 < 0$



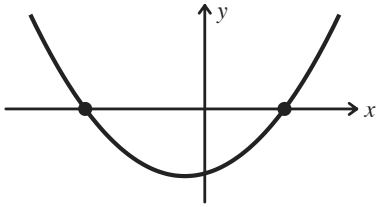
solve: $(x - 2)(x - 3) = 0$

critical values: 2 and 3

Answer _____

2

Solve $x^2 + x - 6 \geq 0$



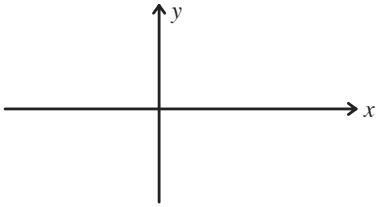
solve: $(x + 3)(x - 2) = 0$

critical values:

Answer _____

3

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



solve:

critical values:

Answer _____

4 *Notice the change!*

Solve $x^2 + 6x + 8 > 0$



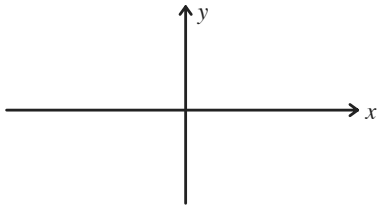
solve:

critical values:

Answer _____

5

Solve $x^2 - 16 < 0$



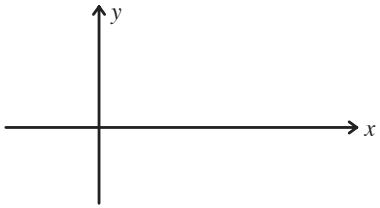
solve:

critical values:

Answer _____

6

Solve $x^2 - 3x \geq 0$



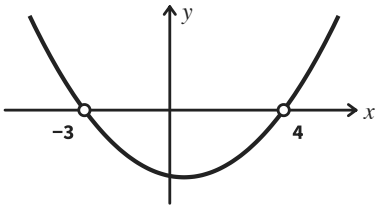
solve:

critical values:

Answer _____

7

Leo solves $x^2 - x - 12 > 0$ and writes $-3 < x < 4$. Explain his mistake. Then write the right answer.



Answer _____

8

Find all the integers that fit $x^2 - x - 6 < 0$.

solve:

so

Integers _____

Quadratic Inequalities *further practice*

9

Solve $x^2 + 3x - 10 \leq 0$.

Answer _____

10

Solve $x^2 > 9x$.

Answer _____

11

Solve $x^2 \geq 49$.

Answer _____

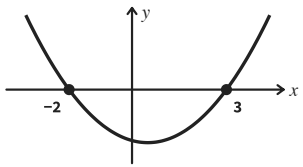
12

Solve $x(x + 2) < 15$.

Answer _____

13

The sketch shows $y = x^2 - x - 6$.
Use it to solve $x^2 - x - 6 \geq 0$.



Answer _____

14

How many integers fit
$x^2 - 7x + 6 \leq 0$?

Answer _____

15

A rectangle is x cm long and $(x - 3)$ cm wide. Its area is less than 40 cm^2. Find the range of values of x.

Answer _____

16

Mia says $x^2 \leq 4$ means $x \leq 2$.
Give a value of x that shows she is wrong. Write the right answer.

Answer _____