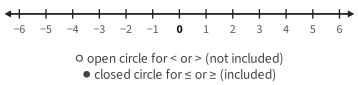
Solving Inequalities: Negatives and Brackets

1

Solve $9 - 4x \geq 21$ and show the answer on the number line.



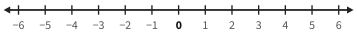
○ open circle for < or > (not included)
● closed circle for ≤ or ≥ (included)

Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

2

Solve $15 - 2x < 7$ and show the answer on the number line.

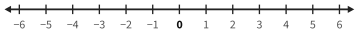


Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

3

Solve $-3x + 4 > 16$ and show the answer on the number line.

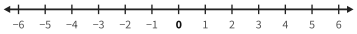


Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

4

Solve $6 - 5x \leq -9$ and show the answer on the number line.

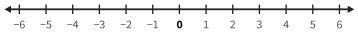


Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

5

Solve $4(x - 1) < 12$ and show the answer on the number line.

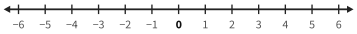


Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

6

Solve $2(3x + 5) \geq 4$ and show the answer on the number line.



Check: try a value from your answer in the question. Is it true?

Answer _____ $x =$ _____ _____

7

n is a positive integer and $11 - 3n > 2$. Write down all the possible values of n.

Answer _____

8

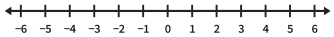
Tom solves $8 - 2x < 14$. He writes $-2x < 6$, so $x < -3$. Explain the mistake Tom has made and write the right answer.

Answer _____

Solving Inequalities: Negatives and Brackets *further practice*

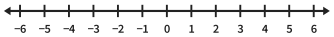
9 Solve $5 - x < 2$ and show the answer on the number line.

Answer _____



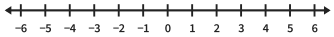
10 Solve $2(3 - x) > 10$ and show the answer on the number line.

Answer _____



11 Solve $3(2x - 1) \leq 2x + 9$ and show the answer on the number line.

Answer _____



12 A tank holds 100 litres of water and 8 litres are used each day. After d days there must be more than 30 litres left. Find the greatest integer value of d.

Answer _____

13 At midnight the temperature is 6 °C. It falls by 2 °C each hour. After h hours it is below −5 °C. Find the smallest integer value of h.

Answer _____

14 A rectangle is $(x - 2)$ cm long and 5 cm wide. Its area is at least 40 cm². Find the smallest possible value of x.

Answer _____

15 Solve $3 - 2x > x + 15$.

Answer _____

16 Mia says that if $-x > 5$ then $x > -5$. Is Mia right? Explain.

Answer _____