

# SOLVING NEGATIVE INEQUALITIES NO FRACTIONS

Answer all of these questions. Remember to show your working out in all questions.

## MAIN QUESTIONS

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1.  $-2x > 8$

2.  $-3x \leq 12$

3.  $-5x < -15$

4.  $-x \geq 7$

5.  $-4x + 2 > 10$

6.  $-3x - 5 \leq 4$

7.  $-2x + 8 < 12$

8.  $-5x - 3 \geq 17$

9.  $-x + 7 > 2$

10.  $-4x - 6 \leq -14$

11.  $-3x + 9 < 0$

12.  $-2x - 4 \geq 8$

13.  $-6x + 12 > -6$

14.  $-5x - 10 \leq 5$

15.  $-7x + 14 < 0$

16.  $-8x - 16 \geq 0$

## MASTER QUESTIONS

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**M1.** A number multiplied by  $-3$  is greater than  $15$ . Find all possible values of the number.

**M2.** The temperature drops by  $4$  degrees each hour. If it must stay above  $-20^{\circ}\text{C}$ , how many hours can it continue dropping from  $0^{\circ}\text{C}$ ?

- M3.** A lift can carry a maximum of 8 people. If each person's weight decreases the capacity by 12kg, and the total decrease must be less than 96kg, how many people can use the lift?
- M4.** A car loses value at £200 per month. If its value must remain above £4000 and it was originally worth £8000, for how many months can it continue losing value?