SOLVING NEGATIVE INEQUALITIES NO FRACTIONS

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

MAIN QUESTIONS

1. $-2x > 8$ | $x < -4$
2. $-3x \leq 12$ | $x \geq -4$

3. $-5x < -15$ | $x > 3$
4. $-x \geq 7$ | $x \leq -7$

5. $-4x + 2 > 10$ | $x < -2$
6. $-3x - 5 \leq 4$ | $x \geq -3$

7. $-2x + 8 < 12$ | $x > -2$
8. $-5x - 3 \geq 17$ | $x \leq -4$

9. $-x + 7 > 2$ | $x < 5$
10. $-4x - 6 \leq -14$ | $x \geq 2$

11. $-3x + 9 < 0$ | $x > 3$
12. $-2x - 4 \geq 8$ | $x \leq -6$

13. $-6x + 12 > -6$ | $x < 3$
14. $-5x - 10 \leq 5$ | $x \geq -3$

15. $-7x + 14 < 0$ | $x > 2$
16. $-8x - 16 \geq 0$ | $x \leq -2$

MASTER QUESTIONS

M1. A number multiplied by -3 is greater than 15. Find all possible values of the number. | $x < -5$

M2. The temperature drops by 4 degrees each hour. If it must stay above -20°C, how many hours can it continue dropping from 0°C?

$x < 5$

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?

$x > 0$

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?

$x < 20$