SOLVING NEGATIVE LINEAR INEQUALITIES

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

MAIN QUESTIONS

1. $-2x > 4$
2. $-3x \leq 9$
3. $-5x + 1 > 11$
4. $-4x - 3 \leq 5$
5. $-7x + 2 \geq -12$
6. $-x/2 < 3$
7. $-3x/4 \geq 6$
8. $-2x + 5 > -3x + 2$
9. $-4x - 7 \leq -2x + 1$
10. $-5(x + 2) > 10$
11. $-3(2x - 1) \leq -9$
12. $-2x/3 + 4 < -2$
13. $-5x/2 - 1 \geq -6$
14. $-3(x - 4) > -2(x + 1)$
15. $-4(2x + 3) \leq -5(x - 2)$
16. $-x + 3 > -2x - 5$

MASTER QUESTIONS

M1. A student scores 72% in a test. The teacher decides to deduct 5% for each day the assignment is late. If the student submits the assignment x days late, write an inequality to represent the score being above 50%.

M2. A mobile phone plan costs £20 per month plus £0.10 per minute of call time. If a customer wants to spend no more than £30 per month, write an inequality to represent this situation.

M3. A car rental company charges £40 per day plus £0.15 per mile driven. If a customer has a budget of £100 for a day, write an inequality to represent the possible miles driven.

M4. A shop offers a discount of £5 for every £50 spent. If a customer wants to pay no more than £200 after discounts, write an inequality to represent the maximum amount they can spend before discounts.