

SOLVING NEGATIVE INEQUALITIES

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

MAIN QUESTIONS

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|-----|-------------------|--|-------------|-----|--------------------|--|-------------|
| 1. | $-2x > 4$ | | $x < -2$ | 2. | $-3x \leq 9$ | | $x \geq -3$ |
| 3. | $-5x + 2 > 12$ | | $x < -2$ | 4. | $-4x - 3 \leq 5$ | | $x \geq -2$ |
| 5. | $7 - 2x < 11$ | | $x > -2$ | 6. | $-x/2 > 3$ | | $x < -6$ |
| 7. | $-3x/4 \leq 6$ | | $x \geq -8$ | 8. | $2 - 5x \geq 17$ | | $x \leq -3$ |
| 9. | $-6x + 7 < -5$ | | $x > 2$ | 10. | $-9x - 4 > 14$ | | $x < -2$ |
| 11. | $8 - 3x \leq -4$ | | $x \geq 4$ | 12. | $-5x + 10 \geq 25$ | | $x \leq -3$ |
| 13. | $-2x/3 + 1 < 5$ | | $x > -6$ | 14. | $-4x - 7 > 9$ | | $x < -4$ |
| 15. | $6 - 8x \leq -10$ | | $x \geq 2$ | 16. | $-7x + 3 \geq -18$ | | $x \leq 3$ |

MASTER QUESTIONS



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|-----|--|--|-------------|
| M1. | A number multiplied by -3 and then increased by 5 is less than 11. Find the possible values of the number. | | $x > -2$ |
| M2. | The product of -4 and a number is greater than or equal to 20. Find the possible values of the number. | | $x \leq -5$ |

M3. Twice a number subtracted from 10 is less than -6. Find the possible values of the number. | $x > 8$

M4. A taxi fare costs £2.50 plus £1.50 per mile. If you have £20, what is the maximum number of miles you can travel without exceeding your budget? | $x \leq 11.666...$