

Worksheet: Linear Inequalities

CBSE · Class 11 · Mathematics · 9 questions · 34 marks

Name: _____

Date: _____

Score: _____ / 34

Q1. Solve $-4x + 12 > 0$ for real x . *[2 marks]*

Q2. Solve $3x - 5 < x + 7$ for real x , and write the solution in interval notation. *[3 marks]*

Q3. Solve $2(x-1) \geq x+3$ and describe how the solution is shown on a number line. *[3 marks]*

Q4. Solve $-5 \leq 2x - 3 < 9$ for real x . *[4 marks]*

Q5. Solve the system: $2x - 3 < 7$ and $3x + 1 \geq 4$. *[4 marks]*

Q6. A student scored 55 and 68 in the first two unit tests. Find the minimum marks needed in the third test for an average of at least 65. *[4 marks]*

Q7. Find all pairs of consecutive even positive integers, both larger than 8, whose sum is less than 40. *[5 marks]*

Q8. A manufacturer has 400 litres of a 10% acid solution. How many litres of a 25% acid solution must be added so the resulting mixture is more than 12% but less than 15% acid? *[5 marks]*

Q9. A liquid must be kept between 20°C and 25°C . Find the corresponding Fahrenheit range, given $C = \frac{5}{9}(F-32)$. *[4 marks]*
