

SUBSTRAND 2.3 — LINEAR INEQUALITIES



SECTION A — MULTIPLE CHOICE (20 marks)

1. Which symbol shows "less than or equal to"?
   A. < B. > C. ≤ D. ≠
2. Solve inequality: x + 5 < 12 → x is?
   A. x < 7 B. x > 7 C. x ≤ 7 D. x = 7
3. Solve and write on number line: 3x ≥ 9 → x ?
   A. x ≥ 3 B. x ≤ 3 C. x > 3 D. x < 3
4. If 2x − 1 ≤ 5, then x ≤ ?
   A. 3 B. 2 C. 4 D. 2.5
5. Which of the following satisfies x > −2?
   A. −3 B. −1 C. −2 D. −5
6. Solve: (x/2) + 3 < 7 → x < ?
   A. 8 B. 6 C. 10 D. 4
7. Which is a compound inequality example?
   A. 2 < x ≤ 7
   B. x + 3 = 6
   C. x > 5 only
   D. x − 2 < 0
8. If x > 2 and x < 5, this can be written as:
   A. 2 < x < 5 B. x > 2 or x < 5 C. x ≥2 and ≤5 D. x = 3
9. Solve: −3x ≤ 9 → x ? (be careful with sign)
   A. x ≥ −3 B. x ≤ −3 C. x ≥ 3 D. x ≤ 3
10. Which inequality represents "a number x is at least 10"?
    A. x > 10 B. x ≥ 10 C. x ≤ 10 D. x < 10
11. Solve: 5 − x > 2 → x ?
    A. x < 3 B. x > 3 C. x ≤ 3 D. x ≥ 3
12. The solution to x/3 ≤ 4 is:
    A. x ≤ 12 B. x ≥ 12 C. x < 12 D. x > 12
13. Represent on number line: x > 0 and x < 4 — which is correct?
    A. (0,4) open interval B. [0,4] closed C. (−∞,4) D. (0,4]
14. Which inequality shows values less than −1?
    A. x < −1 B. x > −1 C. x ≤ −1 D. x ≥ −1
15. Solve: 2(x − 3) ≥ 8 → x ?
    A. x ≥ 7 B. x ≥ 5 C. x ≥ 4 D. x ≥ 3
16. Which number satisfies both x > 1 and x < 3?
    A. 0 B. 1.5 C. 3 D. −1
17. If 4x + 1 < 13, then x < ?
    A. 3 B. 4 C. 2.5 D. 12/4
18. Solve: −2x + 4 ≥ 0 → x ?
    A. x ≤ 2 B. x ≥ 2 C. x ≤ −2 D. x ≥ −2

WORKING SPACE



