



Class 11 Mathematics | Relations And Functions

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. If A has 3 elements and B has 2, $n(A \times B)$ is:

A. 5 B. 9 C. 8 D. 6

2. If $(x+1, 3) = (4, y-2)$, find (x, y) .

A. (4, 3) B. (3, 5) C. (5, 3) D. (3, 1)

3. For $R = \{(1, 2), (2, 4), (3, 4)\}$, the range is:

A. {2, 4} B. {4} C. {1, 2, 3} D. {1, 2, 3, 4}

4. Which relation defines a function on {1, 2}?

A. $\{(1, 3), (2, 3)\}$ B. $\{(1, 2), (2, 3), (2, 4)\}$
C. $\{(1, 2)\}$ D. $\{(1, 2), (1, 3)\}$

5. The real domain of $f(x) = \sqrt{x-3}$ is:

A. $[3, \infty)$ B. R C. $(3, \infty)$ D. $(-\infty, 3]$

6. The real domain of $f(x) = 1/(x^2-9)$ is:

A. R B. $R - \{-9, 9\}$ C. $R - \{-3, 3\}$ D. $R - \{3\}$

7. If $f(x) = 2x^2 - 1$, then $f(-2)$ is:

A. 9 B. -9 C. 7 D. 3

8. The range of $f(x) = x^2$ on R is:

A. $(-\infty, 0]$ B. R C. $[0, \infty)$ D. $(0, \infty)$

9. If $f(x) = \text{absolute value of } x$, $f(-5) - f(2)$ equals:

A. -7 B. 3 C. 7 D. -3

10. If $f(x) = 3x + 1$ and $f(a) = 10$, find a.

A. 11/3 B. -3 C. 9 D. 3

11. The greatest integer not exceeding -1.2 is:

A. 0 B. -2 C. -3 D. -1

12. The signum function at $x=0$ has value:

A. 1 B. Undefined C. -1 D. 0

13. How many functions map a two-element set to a three-element set?

A. 3 B. 9 C. 8 D. 6

14. If $f(x) = x + 2$ and $g(x) = x - 1$, then $(f+g)(3)$ is:

A. 6 B. 7 C. 5 D. 9

15. If $f(x) = x^2$ and $g(x) = x + 1$, then $(f/g)(2)$ is:

A. 2 B. 4 C. 3/4 D. 4/3

ANSWER KEY — check after completing all 15 questions

1.D 2.B 3.A 4.A 5.A 6.C 7.C 8.C 9.B 10.D 11.B 12.D 13.B 14.B 15.D

Original exam-style practice • Reference notes: www.physics.guru/cbse-practice-papers/ • Not an official paper