4 Lecture - MTH101

Important Mcqs

1. **What is the slope of a horizontal line?**
   a) Positive
   b) Negative
   c) Zero
   d) Undefined
   Solution: c) Zero

2. **What is the equation of a line with a slope of 2 and a y-intercept of 3?**
   a) y = 2x + 3
   b) y = 3x + 2
   c) y = 2x - 3
   d) y = -2x + 3
   Solution: a) y = 2x + 3

3. **What is the y-intercept of a line with an equation of y = -5x + 7?**
   a) -5
   b) 5
   c) 7
   d) -7
   Solution: c) 7

4. **What is the slope of a line that passes through points (3, 5) and (8, 11)?**
   a) 3
   b) 2
   c) 1
   d) 6
   Solution: b) 2

5. **What is the slope of a vertical line?**
   a) Positive
   b) Negative
   c) Zero
   d) Undefined
   Solution: d) Undefined

6. **What is the equation of a line that passes through the points (-2, 4) and (4, -2)?**
   a) y = x + 2
   b) y = -x - 2
   c) y = -x + 2
   d) y = x - 2
   Solution: b) y = -x - 2

7. **What is the y-intercept of a line with an equation of y = 2x - 6?**
   a) -2
   b) 2
   c) -6
   d) 6
   Solution: c) -6

8. **What is the slope of a line that is parallel to the line y = 4x + 2?**
   a) 4
   b) -4
   c) 1/4
   d) -1/4
   Solution: a) 4

9. **What is the equation of a line that is perpendicular to the line y = -3x + 5 and passes through the point (2, 4)?**
   a) y = -1/3x + 10/3
   b) y = -3x + 10
   c) y = 1/3x + 2/3
   d) y = 3x - 2
   Solution: a) y = -1/3x + 10/3

10. **What is the slope of a line that passes through the points (0, 4) and (4, 0)?**
    a) 4
    b) -4
    c) 1
    d) -1
    Solution: b) -4