10 Lecture - MTH101

Important Mcqs

1. **What is the limit of the function f(x) = 3x + 1 as x approaches 2?**

a) 7
b) 8
c) 9
d) 10

Answer: b) 8

2. **What is the limit of the function f(x) = (x^2 - 9)/(x - 3) as x approaches 3?**

a) 6
b) 7
c) 8
d) 9

Answer: d) 9

3. **What is the limit of the function f(x) = (2x - 3)/(x + 1) as x approaches -1?**

a) -2
b) -1
c) 0
d) 1

Answer: a) -2

4. **What is the limit of the function f(x) = sin(x)/x as x approaches 0?**

a) 0
b) 1
c) pi
d) infinity

Answer: b) 1

5. **What is the limit of the function f(x) = (x^3 - 8)/(x - 2) as x approaches 2?**

a) 0
b) 1
c) 2
d) infinity

Answer: c) 2

6. **What is the limit of the function f(x) = e^(2x) as x approaches infinity?**

a) 0
b) 1
c) infinity
d) -infinity

Answer: c) infinity

7. **What is the limit of the function f(x) = (x^2 + 2x - 3)/(x^2 - 4) as x approaches 2?**

a) 0
b) 1/4
c) 1/2
d) 1

Answer: c) 1/2

8. **What is the limit of the function f(x) = (x - 1)^3/(x^2 - x - 2) as x approaches 2?**

a) -infinity
b) -1
c) 0
d) infinity

Answer: b) -1

9. **What is the limit of the function f(x) = 1/(x - 2)^2 as x approaches 2?**

a) 0
b) 1
c) infinity
d) -infinity

Answer: c) infinity

10. **What is the limit of the function f(x) = ln(x + 1)/x as x approaches 0?**

a) 0
b) 1
c) e
d) infinity

Answer: b) 1