

9 Lecture - MTH101

Important Mcqs

1. What is the limit of $f(x)$ as x approaches 3 for the function $f(x) = x + 2$?
- a) 3
 - b) 5
 - c) 6
 - d) None of the above

Solution: b) 5

2. What is the limit of $f(x)$ as x approaches infinity for the function $f(x) = 1/x$?
- a) 0
 - b) 1
 - c) infinity
 - d) None of the above

Solution: a) 0

3. What is the limit of $f(x)$ as x approaches 2 for the function $f(x) = (x-2)/(x+4)$?
- a) 2
 - b) 0
 - c) 1
 - d) None of the above

Solution: b) 0

4. What is the limit of $f(x)$ as x approaches -3 for the function $f(x) = |x+3|$?
- a) -3
 - b) 0
 - c) 3
 - d) None of the above

Solution: c) 3

5. What is the limit of $f(x)$ as x approaches 0 for the function $f(x) = \sin(x)/x$?
- a) 1
 - b) 0
 - c) -1
 - d) None of the above

Solution: a) 1

6. What is the limit of $f(x)$ as x approaches 4 for the function $f(x) = (x-4)/(x^2-16)$?
- a) 1/12
 - b) 1/4

- c) $1/8$
- d) None of the above

Solution: b) $1/4$

7. What is the limit of $f(x)$ as x approaches $-\infty$ for the function $f(x) = e^x$?
- a) 0
 - b) -1
 - c) infinity
 - d) None of the above

Solution: a) 0

8. What is the limit of $f(x)$ as x approaches 1 for the function $f(x) = (x-1)/(x^2-1)$?
- a) $-1/2$
 - b) $1/2$
 - c) 1
 - d) None of the above

Solution: b) $1/2$

9. What is the limit of $f(x)$ as x approaches 2 for the function $f(x) = (x^2-4)/(x-2)$?
- a) 2
 - b) 0
 - c) 4
 - d) None of the above

Solution: c) 4

10. What is the limit of $f(x)$ as x approaches 0 for the function $f(x) = (1-\cos(x))/x^2$?
- a) 0
 - b) $1/2$
 - c) infinity
 - d) None of the above

Solution: b) $1/2$