

## FA Part 2 Mathematics Chapter 2 Test Online

Sr	Questions	Answers Choice
1	Sir Isaac Newton was a(an) ----- mathematician.	A. German B. French C. Swiss D. English
2	Gottfried Wilhelm Leibniz was a (an) ----- mathematician:	A. German B. English C. Swiss D. French
3	The small change in the value of $f(x)$ , positive or negative is called the ----- of $x$ .	A. Increment B. Differential C. Derivative D. none of these
4	Question Image	A. $x$ with respect to $y$ B. $y$ with respect to $y$ C. $y$ with respect to $x$ D. $x$ with respect to $x$
5	Question Image	A. Lagrange B. Newtown C. Leibniz D. Cauchy
6	Notation $Df(x)$ for derivative was used by:	A. Cauchy B. Newton C. Leibniz D. Lagrange
7	Question Image	
8	The instantaneous rate of change of $y$ with respect to $x$ is given by:	
9	The derivative of $x$ with respect to $y$ is given by:	
10	Question Image	A. $x = a$ B. for all $x$ D. $x = 0$
11	Question Image	A. $x = a$ B. $x = 2$ C. $x = 0$ D. None
12	Question Image	A. $x = a$ B. $x = 2$ C. $x = 0$ D. None
13	Question Image	A. $c$ B. $0$ C. $1$ D. $-c$
14	Question Image	
15	Question Image	A. $1(1 - 4)$ B. $2x - 3$ C. $x - 3$ D. $x^3 - 3x$
16	Question Image	
17	Question Image	
18	If $y = f(u)$ and $u = F(x)$ , then:	
19	If $s$ is the distance traveled by a body at time $t$ , the velocity is given by the expression:	
20	For a square of side $x$ units, the rate of change of area with respect to the side is given by:	A. $x$ B. $x^2$ C. $2x$ D. $2$

21	Question Image	A. $\sin x$ B. $\cos x$ C. $-\sin x$ D. $-\cos x$
22	Question Image	A. $\sin x$ B. $-\cos x$ C. $-\sin x$ D. $\cos x$
23	Question Image	A. $-\operatorname{cosec}^2 x$ B. $\operatorname{cosec}^2 x$ C. $-\operatorname{cosec} x \cot x$ D. $\operatorname{cosec} x \cot x$
24	If $f(x) = \cos x$ then $f'(0)$ is equal to:	A. 0 B. -1 C. 1
25	Question Image	
26	Question Image	
27	Question Image	
28	Question Image	
29	Question Image	
30	Question Image	
31	Question Image	
32	Question Image	A. 0 B. 1 C. -1 D. 2
33	Question Image	A. $\sinh x$ B. $\cosh x$ C. $-\sinh x$ D. $-\cosh x$
34	Question Image	A. $\sinh x$ B. $\cosh x$ C. $-\sinh x$ D. $-\cosh x$
35	Question Image	A. $2\cosh x$ B. $2\sinh x$ C. $2\sinh(2x)$ D. $-2\sinh(2x)$
36	Question Image	A. $\operatorname{sech} x \tanh x$ B. $-\operatorname{sech} x \tanh x$ C. $\operatorname{sech}^2 x$ D. $-\operatorname{sech}^2 x$
37	Question Image	A. $5 \sin x$ B. $\cosh(5x)$ C. $5 \cosh(5x)$ D. $-5 \cosh(5x)$
38	Question Image	A. $\operatorname{sech} x \tanh x$ B. $-\operatorname{sech}^2 x$ C. $-\operatorname{sech} x \tanh x$ D. $\operatorname{sech}^2 x$
39	Question Image	A. $\operatorname{cosech} x \coth x$ B. $-\operatorname{cosech}^2 x$ C. $-\operatorname{cosech} x \coth x$ D. $\operatorname{cosech}^2 x$
40	Question Image	
41	Question Image	A. $\tan x$ B. $\cot x$ C. $-\tan x$ D. $-\cot x$
42	The Maclaurin series expansion is valid only if it is:	A. Convergent B. Divergent C. Increasing D. Decreasing

43	The function $f(x) = 3x^2$ has minimum value at :	A. $x = 3$ B. $x = 2$ C. $x = 1$ D. $x = 0$
44	Question Image	A. $\sec x \tan x$ B. $\sec^2 x$ C. $-\sec x \tan x$ D. $-\sec^2 x$
45	Question Image	A. $-\operatorname{cosec} x \cot x$ B. $\operatorname{cosec}^2 x$ C. $-\operatorname{cosec}^2 x$ D. $\operatorname{cosec} x \cot x$
46	Question Image	A. $\sec x \tan x$ B. $-\sec^2 x$ C. $-\sec x \tan x$ D. $\sec^2 x$