

Question FBQ1 : A ___ is a phenomenon that relates one variable or quantity to other variables or quantities

Answer: Function

Question FBQ2 : The___ of the function is the set of all values taken on by the dependent variable

Answer: range

Question FBQ3 : In the equation, <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>y</mi><mo>=</mo><mn>4</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mn>3</mn></math>, <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math> is the ___ variable

Answer: Independent

Question FBQ4 : To decide whether an equation defines a function, it is helpful to isolate the ___on the left

Answer: Dependent variable

Question FBQ5 : The equation <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>y</mi><mo>=</mo><mo>±</mo><msqrt><mn>1</mn><mo>-</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup></msqrt></math> indicates that <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>y</mi><mo>=</mo><mo>+</mo><mn>1</mn></math> or<math xmlns="http://www.w3.org/1998/Math/MathML" ><mi> </mi><mi>y</mi><mo>=</mo></math> _____

Answer: -1

Question FBQ6 : The solution of <math xmlns="http://www.w3.org/1998/Math/MathML" ><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><msup><mrow><mi>y</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>=</mo><mn>4</mn><mi> </mi></math> when <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi><mo>=</mo><mn>1</mn></math> is ___

Answer: ±3

Question FBQ8 : The value of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mn>2</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></msup><mo>-</mo><mn>4</mn><mi>x</mi><mo>+</mo><mn>1</mn></math> when <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi><mo>=</mo><mn>0</mn></math> is ___

Answer: 1

Question FBQ9 : If p is a polynomial function and c is any real number, then <math xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mi>c</mi></mrow></munder></mrow><mo></mo><mrow><mi>p</mi><mo>(</mo><mi>x</mi><mo>)</mo></mrow></mrow><mo>=</mo><mo>_</mo><mo>_</mo><mo>_</mo></math>

Answer: p(c)

Question FBQ10 : In sketching the graph of a function, we allow the horizontal axis represent the ___ variable

Answer: Independent

Question FBQ11 : A function is ___ if every horizontal line intersects the graph of the function at most once

Answer: One to one

Question FBQ12 : If two values of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>y</mi></math> corresponds to an

<math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math> value, then it is said that ___

Answer: y is not a function of x

Question FBQ13 : The function given by <math xmlns="http://www.w3.org/1998/Math/MathML" ><mfenced separators="|"><mrow><mi>f</mi><mo>.</mo><mi>g</mi></mrow></mfenced><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>f</mi><mo>(</mo><mi>g</mi><mo>(</mo><mi>x</mi><mo>)</mo><mo>)</mo></math> is the ___ of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math> with <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi></math>

Answer: Composite

Question FBQ14 : If <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mn>2</mn><mi>x</mi><mo>+</mo><mn>1</mn></math> and <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mn>2</mn></math> the value of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mo>(</mo><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</mo><mo>)</mo></math> is ___

Answer: 4x2 + 4x + 3

Question FBQ15 : Given that <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msqrt><mi>x</mi></msqrt></math> and <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi> </mi><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>-</mo><mn>1</mn></math>, <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mo>(</mo><mi>g</mi><mo>(</mo><mn>1</mn><mo>)</mo><mo>)</mo></math> = ___

Answer: 0

Question FBQ16 : In an inverse function, the domain of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math> must be equal to the range of <math xmlns="http://www.w3.org/1998/Math/MathML" ><msup><mrow><mi>f</mi></mrow><mrow><mo>-</mo><mn>1</mn></mrow></msup></math>, and the range of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math> must be equal to the domain of ___

Answer: f-1

Question FBQ17 : The inverse function of <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></msup></math> is ___

Answer: x3

Question FBQ18 : <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math> has no inverse if does not pass the _____ test

Answer: Horizontal

Question FBQ19 : For a continuous function <math xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><msub><mrow><mi>x</mi></mrow><mrow><mn>0</mn></mrow></msub></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mo>(</mo><msub><mrow><mi>x</mi></mrow><mrow><mn>0</mn></mrow></msub><mo>)</mo></mrow></mrow></math> =

Answer: f(x0)

Question FBQ20 : <math xmlns="http://www.w3.org/1998/Math/MathML"

><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mo>-</
mo><mn>2</mn></mrow></munder></mrow><mo></mo><mrow><mfrac><mrow><mn>5</mn></
mrow><mrow><mi>x</mi><mo>+</mo><mn>2</mn></mrow></mfrac><mo>=</mo><mo>_</
mo><mo>_</mo><mo>_</mo></mrow></mrow></math>

Answer: ∞

Question FBQ21 : Let c be a real number and <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>g</mi><mo>(</
mo><mi>x</mi><mo>)</mo></math> for all <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>≠</mo><mi>c</mi></math>. If the limit of <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced></math> exists as <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>→</mo><mi>c</mi></math>, then the limit of <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced></math> also exists and <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>2</
mn></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo></mrow></
mrow><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</
mo><mn>2</mn></mrow></munder></mrow><mo></mo><mrow><mi>g</mi><mo>(</mo><mi>x</
mi><mo>)</mo></mrow></mrow></math>. This theorem is known as the ___

Answer: Replacement theorem

Question FBQ22 : Evaluating <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>1</
mn></mrow></munder></mrow><mo></mo><mrow><mfrac><mrow><msup><mrow><mi>x</mi></
mrow><mrow><mn>3</mn></mrow></msup><mo>-</mo><mn>1</mn></mrow><mrow><mi>x</
mi><mo>-</mo><mn>1</mn></mrow></mfrac></mrow></mrow></math> gives ___

Answer: 2

Question FBQ23 : A polynomial function is continuous at every real ___

Answer: Number

Question FBQ24 : There are ___ categories of discontinuities

Answer: 2

Question FBQ25 : A function is said to be continuous if and only if it
is continuous at every point of its ___

Answer: Domain

Question FBQ26 : The function <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msqrt><mn>3</mn><mo>-
</mo><mi>x</mi></msqrt></math> is continuous in the interval ___

Answer: (-∞,3]

Question FBQ27 : Continuity of a function is expressed some times by
saying if the x value are closed together, then the ___values of the function
will also be close

Answer: Y

Question FBQ28 : Derivative is often described as the “___ rate of
change”

Answer: Instantaneous

Question FBQ29 : The process of finding a derivative is called ___

Answer: Differentiation

Question FBQ30 : ___ is defined as the ratio of the vertical distance

the line rises or falls between two points P and Q to the horizontal distance between P and Q

Answer: Gradient

Question FBQ31 : ___ theorem can be used to find the derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>y</mi><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mi>n</mi></mrow></msup></math>

Answer: Binomial

Question FBQ32 : The derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"><mrow><mrow><mi>cot</mi></mrow><mo></mo><mrow><mi>x</mi></mrow></mrow></math> is ___

Answer: -cosec2x

Question FBQ33 : The derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>c</mi><mi>o</mi><mi>s</mi><mi>e</mi><mi>c</mi><mi> </mi><mi>x</mi></math> is ___

Answer: –cosec x.cotx

Question FBQ34 : If we differentiate <math xmlns="http://www.w3.org/1998/Math/MathML"><msup><mrow><mi>a</mi></mrow><mrow><mi>x</mi></mrow></msup></math>, we get ___

Answer: ax.lna

Question FBQ35 : If <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>y</mi><mo>=</mo><mi>u</mi><mi>v</mi></math>, then the product rule is given as <math xmlns="http://www.w3.org/1998/Math/MathML"><mfrac><mrow><mi>d</mi><mi>y</mi></mrow><mrow><mi>d</mi><mi>x</mi></mrow></mfrac></math> ___

Answer: udvdx+vdudx

Question FBQ36 : The quotient rule for differentiation is given as <math xmlns="http://www.w3.org/1998/Math/MathML"><mfrac><mrow><mi>d</mi><mi>y</mi></mrow><mrow><mi>d</mi><mi>x</mi></mrow></mfrac></math> ___

Answer: dydx=vdudx-udvdxv2

Question FBQ37 : The chain rule of differentiation is given as___ <math xmlns="http://www.w3.org/1998/Math/MathML"><mfrac><mrow><mi>d</mi><mi>y</mi></mrow><mrow><mi>d</mi><mi>x</mi></mrow></mfrac></math>

Answer: dydu.dudx

Question FBQ38 : The derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>y</mi><mo>=</mo><mi>t</mi><mi>a</mi><mi>n</mi><mo></mo><mo>(</mo><mn>3</mn><mi>x</mi><mo>+</mo><mn>2</mn><mo>)</mo></math> is ___

Answer: 3sec2(3x+2)

Question FBQ39 : The derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>y</mi><mo>=</mo><mi>s</mi><mi>i</mi><mi>n</mi><mo></mo><mo>(</mo><mn>4</mn><mi>x</mi><mo>+</mo><mn>3</mn><mo>)</mo></math> is ___

Answer: 4cos(4x+3)

Question FBQ40 : <math xmlns="http://www.w3.org/1998/Math/MathML"><mi>x</mi><mi>y</mi><mo>+</mo><mi>c</mi><mi>o</mi><mi>s</mi><mi>y</mi><mo>=</mo><mn>5</mn></math> is an example of an___ function

Answer: Implicit

Question FBQ41 : If <math xmlns="http://www.w3.org/1998/Math/MathML"

><mi>y</mi><mo>=</mo><mi> </mi><msup><mrow><mi>x</mi></mrow><mrow><mn>5</mn></
mrow></msup><msup><mrow><mi>e</mi></mrow><mrow><mi>x</mi></mrow></msup></math>,
<math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>d</mi><mi>y</mi></mrow><mrow><mi>d</mi><mi>x</mi></mrow></
mfrac></math> gives ___

Answer: x4exx+5

Question FBQ42 : The <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>c</mi></math> in integration is called an ___ constant

Answer: Arbitrary

Question FBQ43 : The general formula for integration <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><msup><mrow><mi>x</mi></mrow><mrow><mi>n</mi></
mrow></msup><mi>d</mi><mi>x</mi></mrow></mrow></math> is given as ___

Answer: xn+1n+1+c

Question FBQ44 : <math
xmlns="http://www.w3.org/1998/Math/MathML"><mrow><mo
stretchy="false">∫</mo><mrow><mfrac><mrow><mo>-</mo><mn>1</mn></mrow><mrow><msqr
t><mn>1</mn><mo>-</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup></msqrt></mrow></mfrac><mi>d</mi><mi>x</mi></mrow></mrow></math>

Answer: cos-1x+c

Question FBQ45 : <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo
stretchy="false">∫</mo><mrow><mfrac><mrow><mn>1</mn></mrow><mrow><msqrt><msup><m
row><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>-</mo><mn>1</mn></
msqrt></mrow></mfrac><mi>d</mi><mi>x</mi><mo>=</mo></mrow></mrow></math>

Answer: cosh-1x+c

Question FBQ46 : <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo
stretchy="false">∫</mo><mrow><mfrac><mrow><mn>1</mn></mrow><mrow><msqrt><msup><m
row><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mn>1</mn></
msqrt></mrow></mfrac><mi>d</mi><mi>x</mi><mo>=</mo></mrow></mrow></math>

Answer: Sinh-1x + c

Question FBQ47 : <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo stretchy="false">∫</mo><mrow><mfrac><mrow><msup><mrow><mi>f</mi></
mrow><mrow><mi>'</mi></mrow></msup><mo>(</mo><mi>x</mi><mo>)</mo></
mrow><mrow><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</mo></mrow></mfrac><mi>d</
mi><mi>x</mi><mo>=</mo></mrow></mrow></math>

Answer: ln{f(x)} + c

Question FBQ48 : The volume of a cone <math
xmlns="http://www.w3.org/1998/Math/MathML"
><msub><mrow><mi>V</mi></mrow><mrow><mi>c</mi><mi>o</mi><mi>n</mi><mi>e</mi></
mrow></msub><mo>=</mo></math>___

Answer: 13πr2h

Question FBQ49 : The volume of a sphere is given as <math
xmlns="http://www.w3.org/1998/Math/MathML"
><msub><mrow><mi>V</mi></mrow><mrow><mi>x</mi></mrow></msub><mo>=</mo></math>
___

Answer: 4πr33

Question FBQ50 : <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo
stretchy="false">∫</mo><mrow><msup><mrow><mi>a</mi></mrow><mrow><mi>x</mi></
mrow></msup><mi>d</mi><mi>x</mi><mo>=</mo></mrow></mrow></math>

Answer: axlnx+c

Question FBQ7 : The equation of the tangent at x = 2 on the curve

<math xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mi> </
mi><msup><mrow><mi>y</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>-</mo><mi> </
mi><mn>2</mn><mi>x</mi><mo>+</mo><mi>y</mi><mo>=</mo><mn>6</mn></math> is ___

Answer: 5y + 2x – 14 = 0

Question MCQ1 : Which of the equation below define y as a function of
x?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mi>y</
mi><mo>=</mo><mn>1</mn></math>

Question MCQ2 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mo>(</mo><mo>-</mo><mn>1</mn><mo>)</mo></math> for the equation
<math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mn>2</mn><mi>x</mi></mrow><mrow><mn>2</mn></
mrow></msup><mo>-</mo><mn>4</mn><mi>x</mi><mo>+</mo><mn>1</mn></math>

Answer: 7

Question MCQ3 : Find the value of <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mn>1</mn><mo>-</
mo><mn>5</mn><mi>x</mi><mo>+</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</
mn></mrow></msup></math> for <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>=</mo><mn>4</mn></math>

Answer: -3

Question MCQ4 : Let <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msup><mrow><mi>x</
mi></mrow><mrow><mn>2</mn></mrow></msup><mo>-</mo><mn>4</mn><mi>x</mi><mo>+</
mo><mn>7</mn></math>, find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi><mo>+</mo><mo>Δ</mo><mi>x</mi></mrow></
mfenced><mo>-</mo><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</mo></mrow><mrow><mo>Δ</
mo><mi>x</mi></mrow></mfrac></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>2</mn><mi>x</mi><mo>+</mo><mo>Δ</mo><mi>x</mi><mo>-</mo><mn>4</mn></math>

Question MCQ5 : Division by Zero is...

Answer: Undefined

Question MCQ6 : A function is said to be one to one if...

Answer: To each value of the dependent variable in the range, there
corresponds exactly one value of the independent variable

Question MCQ7 : If <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mn>2</mn><mi>x</
mi><mo>-</mo><mn>4</mn></math> and <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msup><mrow><mi>x</
mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mn>3</mn></math>, find <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mo>(</mo><mi>g</mi><mo>(</mo><mi>x</mi><mo>)</mo><mo>)</mo></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>2</mn><mo>(</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><mo>-</mo><mn>1</mn><mo>)</mo></math>

Question MCQ8 : If <math xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>f</mi></mrow><mrow><mo>-</mo><mn>1</mn></mrow></msup><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>x</mi><mo>-</
mo><mn>8</mn></math>, then <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</mo><mo>=</mo></math>?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>+</mo><mn>8</mn></math>

Question MCQ9 : Let f <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mfrac><mrow><mn>1</
mn></mrow><mrow><mi>x</mi></mrow></mfrac></math> , then <math
xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>f</mi></mrow><mrow><mo>-</mo><mn>1</mn></mrow></msup><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced></math> is given as...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math>

Question MCQ20 : Which of the following conditions does NOT determine
the continuity of <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi></math> at point c?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mi>c</
mi></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mfenced
separators="|"><mrow><mi>c</mi></mrow></mfenced><mo>=</mo><mi>f</mi><mo>(</
mo><mi>x</mi><mo>)</mo></mrow></mrow></math>

Question MCQ21 : <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mfrac><mrow><mo>(</
mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>-</mo><mn>1</
mn><mo>)</mo></mrow><mrow><mo>(</mo><mi>x</mi><mo>-</mo><mn>1</mn><mo>)</mo></
mrow></mfrac></math> is continuous on the interval ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mfenced
separators="|"><mrow><mo>-</mo><mi>∞</mi><mo>,</mo><mn>1</mn></mrow></
mfenced><mi>a</mi><mi>n</mi><mi>d</mi><mi> </mi><mo>(</mo><mn>1</mn><mo>,</
mo><mi>∞</mi><mo>)</mo></math>

Question MCQ22 : Discontinuities fall into two categories namely ...

Answer: Removable and non-removable

Question MCQ23 : The representation <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</
mo><msup><mrow><mi>b</mi></mrow><mrow><mo>-</mo></mrow></msup></mrow></
munder></mrow><mo></mo><mrow><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>f</mi><mo>(</
mo><mi>b</mi><mo>)</mo></mrow></mrow></math> shows that ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math>
is continuous from the left at b

Question MCQ24 : Which of the following statements is true about the
continuity of <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><msqrt><mn>3</mn><mo>-
</mo><mi>x</mi></msqrt></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>f</mi></math>
is continuous on the interval <math xmlns="http://www.w3.org/1998/Math/MathML"
><mo>(</mo><mo>-</mo><mi>∞</mi><mo>,</mo><mn>3</mn><mo>]</mo></math>

Question MCQ25 : Which of the following about the continuity of <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>g</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mfenced open="{"
close="" separators="|"><mrow><mtable><mtr><mtd><mrow><malignmark/><mn>5</
mn><mo>-</mo><mi>x</mi><mo>,</mo><mi> </mi><mo>-</mo><mn>1</mn><mo>≤</
mo><mi>x</mi><mo>≤</mo><mn>2</mn></mrow></mtd></
mtr><mtr><mtd><mrow><malignmark/><msup><mrow><mi>x</mi></mrow><mrow><mn>2</
mn></mrow></msup><mo>-</mo><mn>1</mn><mo>,</mo><mi> </mi><mn>2</mn><mo><</
mo><mi>x</mi><mo>≤</mo><mn>3</mn></mrow></mtd></mtr></mtable></mrow></
mfenced></math> is NOT correct?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>2</
mn></mrow></munder></mrow><mo></mo><mrow><mi>g</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced></mrow></mrow></math> is
continuous on the interval <math xmlns="http://www.w3.org/1998/Math/MathML"
><mo>[</mo><mo>-</mo><mi>∞</mi><mo>,</mo><mi>∞</mi><mo>]</mo></math>

Question MCQ26 : Differentiate <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></
msup><mo>+</mo><mn>5</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><mo>-</mo><mn>4</mn><mi>x</mi><mo>+</mo><mn>2</mn></math> with respect to
<math xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>3</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</
mo><mn>10</mn><mi>x</mi><mo>-</mo><mn>4</mn></math>

Question MCQ27 : Find the value of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>d</mi><mi>y</mi></mrow><mrow><mi>d</mi><mi>x</mi></mrow></
mfrac></math> at <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>=</mo><mn>2</mn></math>, if <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>4</mn></mrow></
msup><mo>+</mo><mn>6</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></
msup><mo>-</mo><mn>4</mn><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><mo>+</mo><mn>7</mn><mi>x</mi><mo>-</mo><mn>2</mn></math>

Answer: 95

Question MCQ28 : The derivative of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>s</mi><mi>i</mi><mi>n</mi><mi>x</mi><mo>+</mo><mi>c</mi><mi>o</mi><mi>s</
mi><mi>x</mi><mo>=</mo><mo>…</mo></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>c</mi><mi>o</mi><mi>s</mi><mi>x</mi><mo>-</mo><mi>s</mi><mi>i</mi><mi>n</
mi><mi>x</mi></math>

Question MCQ29 : What is the derivative of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi> </mi><mi> </mi><mi>l</mi><mi>n</mi><mo></mo><mo>(</mo><mi>x</mi><mo>)</
mo></math>?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>1</mn><mo>/</mo><mi>x</mi></math>

Question MCQ30 : If the derivative of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><mi>sec</mi></mrow><mo></mo><mrow><mi>x</mi><mo>=</mo><mrow><mrow><
mi>sec</mi></mrow><mo></mo><mrow><mi>x</mi><mrow><mrow><mi>tan</mi></
mrow><mo></mo><mrow><mi>x</mi></mrow></mrow></mrow></mrow></mrow></mrow></math>,
find the derivative of <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>c</mi><mi>o</mi><mi>s</mi><mi>e</mi><mi>c</mi><mi> </mi><mi>x</mi></math>.

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mo>–</mo><mi>c</mi><mi>o</mi><mi>s</mi><mi>e</mi><mi>c</mi><mi> </mi><mi>x</
mi><mi> </mi><mo>.</mo><mi>c</mi><mi>o</mi><mi>t</mi><mi> </mi><mi>x</mi></math>

Question MCQ31 : If we differentiate <math
xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>e</mi></mrow><mrow><mi>x</mi></mrow></msup></math>, we get ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><msup><mrow><mi>e</mi></mrow><mrow><mi>x</mi></mrow></msup></math>

Question MCQ32 : Find the derivative of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></

msup><mi>s</mi><mi>i</mi><mi>n</mi><mi>x</mi></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>(</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><mi>c</mi><mi>o</mi><mi>s</mi><mi>x</mi><mo>+</mo><mn>3</mn><mi>s</
mi><mi>i</mi><mi>n</mi><mi>x</mi><mo>)</mo></math>

Question MCQ33 : Differentiate <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><msup><mrow><mo>(</mo><mn>2</mn><mi>x</mi><mo>-</mo><mn>5</mn><mo>)</mo></
mrow><mrow><mn>4</mn></mrow></msup></math> with respect to <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math> yields ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>2</mn><mi>x</mi><msup><mrow><mfenced
separators="|"><mrow><mn>2</mn><mi>x</mi><mo>-</mo><mn>5</mn></mrow></
mfenced></mrow><mrow><mn>3</mn></mrow></msup><mo>(</mo><mn>6</mn><mi>x</mi><mo>-
</mo><mn>5</mn><mo>)</mo></math>

Question MCQ34 : Differentiate with respect to <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math> if <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><mfrac><mrow><mi>s</mi><mi>i</mi><mi>n</mi><mi>x</mi></
mrow><mrow><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup></mrow></
mfrac></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>x</mi><mi>c</mi><mi>o</mi><mi>s</mi><mi>x</mi><mo>-</
mo><mn>2</mn><mi>s</mi><mi>i</mi><mi>n</mi><mi>x</mi></
mrow><mrow><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></msup></mrow></
mfrac></math>

Question MCQ35 : The gradient of a curve is found ...

Answer: At a point on the curve

Question MCQ36 : In differentiation, the chain rule technique is used
when differentiating ...

Answer: A function of a function

Question MCQ37 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo
stretchy="false">∫</mo><mrow><mo>(</mo><msup><mrow><mi>s</mi></mrow><mrow><mn>3<
/mn></mrow></msup><mo>+</mo><mn>4</mn><mi>s</mi><mo>)</mo><mi>d</mi><mi>s</
mi></mrow></mrow></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><msup><mrow><mi>s</mi></mrow><mrow><mn>4</mn></mrow></msup></
mrow><mrow><mn>4</mn></mrow></mfrac><mo>+</mo><mn>2</mn><msup><mrow><mi>s</
mi></mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mi>c</mi></math>

Question MCQ38 : Evaluate <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><msup><mrow><mo>(</mo><mn>3</mn><mi>x</mi><mo>-</
mo><mn>2</mn><mo>)</mo></mrow><mrow><mn>6</mn></mrow></msup><mi>d</mi><mi>x</
mi></mrow></mrow></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><msup><mrow><mo>(</mo><mn>3</mn><mi>x</mi><mo>-</mo><mn>2</
mn><mo>)</mo></mrow><mrow><mn>7</mn></mrow></msup></mrow><mrow><mn>21</mn></
mrow></mfrac><mo>+</mo><mi>c</mi></math>

Question MCQ39 : Evaluate <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><mi>c</mi><mi>o</mi><mi>s</mi><mo></mo><mo>(</
mo><mn>6</mn><mi>x</mi><mo>+</mo><mn>4</mn><mo>)</mo><mi>d</mi><mi>x</mi></
mrow></mrow></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>s</mi><mi>i</mi><mi>n</mi><mo></mo><mo>(</mo><mn>6</

mn><mi>x</mi><mo>+</mo><mn>4</mn><mo>)</mo></mrow><mrow><mn>6</mn></mrow></
mfrac><mo>+</mo><mi>c</mi></math>

Question MCQ40 : Evaluate <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><msup><mrow><mo>(</mo><mi>s</mi><mi>e</mi><mi>c</
mi></mrow><mrow><mn>2</mn></mrow></msup><mn>8</mn><mi>x</mi></mrow></
mrow><mo>)</mo><mi>d</mi><mi>x</mi></math>

Answer: <p style="text-align:center"><math
xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mi>t</mi><mi>a</mi><mi>n</mi><mn>8</mn><mi>x</mi></
mrow><mrow><mn>8</mn></mrow></mfrac><mo>+</mo><mi>c</mi></math><span
style="font-size:18pt">

Question MCQ41 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo stretchy="false">∫</mo><mrow><mfrac><mrow><mn>2</mn><mi>x</mi><mo>-
</mo><mn>5</mn></mrow><mrow><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></
mrow></msup><mo>-</mo><mn>5</mn><mi>x</mi><mo>+</mo><mn>6</mn></mrow></
mfrac><mi>d</mi><mi>x</mi></mrow></mrow></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><mi>ln</mi></mrow><mo></mo><mrow><mfenced
separators="|"><mrow><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup><mo>-</mo><mn>5</mn><mi>x</mi><mo>+</mo><mn>6</mn></mrow></mfenced><mo>+</
mo><mi>c</mi></mrow></mrow></math>

Question MCQ42 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mo stretchy="false">∫</mo><mrow><mi>c</mi><mi>o</mi><mi>t</mi><mi>x</
mi><mi>d</mi><mi>x</mi></mrow></mrow></math>

Answer: <p style="text-align:center"><math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><mi>ln</mi></mrow><mo></mo><mrow><mi>s</mi><mi>i</mi><mi>n</
mi><mi>x</mi><mo>+</mo><mi>c</mi></mrow></mrow></math>

Question MCQ43 : Evaluate <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><mi>x</mi><msup><mrow><mi>e</mi></mrow><mrow><mn>2<
/mn><mi>x</mi></mrow></msup></mrow></mrow><mi>d</mi><mi>x</mi></math><span
style="font-size:16pt"> using integration by parts

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><msup><mrow><mi>e</mi></mrow><mrow><mn>2</mn><mi>x</mi></mrow></
msup></mrow><mrow><mn>2</mn></mrow></mfrac><mi> </mi><mfenced open="[" close="]"
separators="|"><mrow><mi>x</mi><mo>-</mo><mfrac><mrow><mn>1</mn></
mrow><mrow><mn>2</mn></mrow></mfrac></mrow></mfenced><mo>+</mo><mi>c</mi></math>

Question MCQ44 : Definite integrals can also be used to calculate ...

Answer: Volume of solids

Question MCQ45 : The infinitesimal volume of a cylinder representing
an element of integration revolving around the <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>x</mi></math> axis is given
by ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><msub><mrow><mi>V</mi></mrow><mrow><mi>x</mi></mrow></msub><mo>=</mo><mi>π</
mi><mo>-</mo><mrow><munderover><mo
stretchy="false">∫</mo><mrow><mi>a</mi></mrow><mrow><mi>b</mi></mrow></
munderover><mrow><msup><mrow><mi>y</mi></mrow><mrow><mn>2</mn></mrow></msup></
mrow></mrow><mi>d</mi><mi>x</mi></math>

Question MCQ46 : The infinitesimal volume of a cylinder representing
an element of integration revolving around the <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>y</mi></math> axis is given
by ...

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><msub><mrow><mi>V</mi></mrow><mrow><mi>y</mi></mrow></msub><mo>=</mo><mi>π</

mi><mrow><munderover><mo
stretchy="false">∫</mo><mrow><mi>a</mi></mrow><mrow><mi>b</mi></mrow></
munderover><mrow><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></msup></
mrow></mrow><mi>d</mi><mi>x</mi></math>

Question MCQ47 : Find the volume of a sphere generated by a semicircle
<math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msqrt><msup><mrow><mi>r</mi></mrow><mrow><mn>2</mn></
mrow></msup><mo>-</mo><msup><mrow><mi>x</mi></mrow><mrow><mn>2</mn></mrow></
msup></msqrt></math> revolving around the <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>-</mo><mi>a</mi><mi>x</mi><mi>i</mi><mi>s</mi><mo>.</mo></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mn>4</mn><mi> </mi><mi>π</mi><msup><mrow><mi>r</mi></mrow><mrow><mn>2</mn></
mrow></msup><mo>/</mo><mn>3</mn></math>

Question MCQ48 : Find the volume of a right circular cone generated by
the line (segment) passing through the origin and point <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mo>(</mo><mi>h</mi><mo>,</mo><mi>r</mi><mo>)</mo></math>, where <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mi>h</mi></math> denotes the height
of the cone and <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>r</mi></math> is the radius of its base revolving around the <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>-</mo><mi>a</mi><mi>x</mi><mi>i</mi><mi>s</mi></math>.

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><msub><mrow><mi>V</mi></mrow><mrow><mi>c</mi><mi>o</mi><mi>n</mi><mi>e</mi></
mrow></msub><mo>=</mo><mfrac><mrow><mn>1</mn></mrow><mrow><mn>3</mn></mrow></
mfrac><mi>π</mi><msup><mrow><mi>r</mi></mrow><mrow><mn>2</mn></mrow></
msup><mi>h</mi></math>

Question MCQ49 : Find the value of <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>d</mi><mi>y</mi><mo>/</mo><mi>d</mi><mi>x</mi></math> for <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>y</mi><mo>=</mo><msup><mrow><mo>(</mo><mn>2</mn><mi>x</mi><mo>+</
mo><mn>5</mn><mo>)</mo></mrow><mrow><mn>3</mn></mrow></msup></math> at <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>=</mo><mn>4</mn></math>

Answer: 1014

Question MCQ50 : What is the value of <math
xmlns="http://www.w3.org/1998/Math/MathML" ><mrow><mo
stretchy="false">∫</mo><mrow><mi>c</mi><mi>o</mi><mi>s</mi><mi>x</mi><mi>d</
mi><mi>x</mi></mrow></mrow></math> at <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mi>x</mi><mo>=</mo><mn>30</mn></math>?

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
><mfrac><mrow><mn>1</mn></mrow><mrow><mn>2</mn></mrow></mfrac></math>

Question MCQ15 : If <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mi>c</
mi></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>L</mi></mrow></
mrow><mi> </mi><mi>a</mi><mi>n</mi><mi>d</mi><mi> </
mi><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</
mo><mi>c</mi></mrow></munder></mrow><mo></mo><mrow><mi>g</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi>K</mi></mrow></
mrow></math>, then <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mi>c</
mi></mrow></munder></mrow><mo></mo><mrow><mfenced open="[" close="]"
separators="|"><mrow><mi>b</mi><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced></mrow></mfenced><mo>=</
mo><mi>b</mi><mi>L</mi></mrow></mrow></math> is called...

Answer: Scalar multiple

Question MCQ16 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>2</
mn></mrow></munder></mrow><mo></mo><mrow><msup><mrow><mo>(</mo><mi>x</mi></
mrow><mrow><mn>2</mn></mrow></msup><mo>+</mo><mn>2</mn><mi>x</mi><mo>-</
mo><mn>3</mn><mo>)</mo></mrow></mrow></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mn>5</mn></math>

Question MCQ17 : Evaluate <math
xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>1</
mn></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</
mo></mrow></mrow></math> if <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi> </mi><mfrac><mrow
><msup><mrow><mi>x</mi></mrow><mrow><mn>3</mn></mrow></msup><mo>-</mo><mn>1</
mn></mrow><mrow><mi>x</mi><mo>-</mo><mn>1</mn></mrow></mfrac></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mn>3</mn></math>

Question MCQ18 : Find <math xmlns="http://www.w3.org/1998/Math/MathML"
><mrow><mrow><munder><mrow><mi>lim</mi></mrow><mrow><mi>x</mi><mo>→</mo><mn>0</
mn></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</
mo></mrow></mrow></math> if <math xmlns="http://www.w3.org/1998/Math/MathML"
><mi>f</mi><mfenced
separators="|"><mrow><mi>x</mi></mrow></mfenced><mo>=</mo><mi> </mi><mfrac><mrow
><msqrt><mi>x</mi><mo>+</mo><mn>1</mn></msqrt><mo>-</mo><mn>1</mn></
mrow><mrow><mi>x</mi></mrow></mfrac></math>

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mfrac
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Question MCQ19 : Let <math xmlns="http://www.w3.org/1998/Math/MathML"
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Answer: 18

Question MCQ10 : Find the inverse function of <math
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Answer: <math xmlns="http://www.w3.org/1998/Math/MathML"
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Question MCQ11 : Find the domain and range of <math
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your result in interval notation.

Answer: <math xmlns="http://www.w3.org/1998/Math/MathML" ><mfenced open="["
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Question MCQ13 : Find the limit: <math

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mn></mrow></munder></mrow><mo></mo><mrow><mi>f</mi><mo>(</mo><mi>x</mi><mo>)</
mo></mrow></mrow></math> if <math xmlns="http://www.w3.org/1998/Math/MathML"
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Answer: 2

Question MCQ14 : Evaluate <math
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Answer: 1

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Answer: <img
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