Default for MTH101
The default category for questions shared in context 'MTH101'.
Fill in the Blank (FBQs)
FBQ1

Discriminant
1.0000000

0.0000000
FBQ2

-2
1.0000000

0.0000000

0.0000000
FBQ3
In terms of their elements, two sets are called disjoint if they have
_____

no element in common
1.0000000

0.0000000
FBQ4
The set of all y values of a relation is called the _____

Domain
1.0000000

0.0000000
FBQ5
The set of element in {x | x is a positive even integer less than 4} is:
_____

{1,2,3}
1.0000000

0.0000000
FBQ6
The centre of the circle is …………………

(1,-3)
1.0000000

0.0000000
FBQ7
The common ratio is _____, when the fourth term is divided by the second
term is 9

3
1.0000000

0.0000000
FBQ8
In slope-intercept form, the equation of a line passing through the point (-3,2)
and parallel to 4x-y=7 is given as ……………..

y=4x+4
1.0000000

0.0000000
FBQ9
The distance between the points (-3, 19), (-7, -5) to the nearest tenth is
…………..

24.3
1.0000000

0.0000000
FBQ10
Power set of empty set has exactly …………………… number of subset.

Zero
1.0000000
0
1.0000000
FBQ11
The x intercept of 9x-2y=18 is _____

(3,0)
1.0000000

0.0000000
FBQ12
What is the coordinate of the y-intercept of the linear equation 9x-2y=18
is……………..

(0,2)
1.0000000

0.0000000
FBQ13
The leading coefficient of y=6x3-3x2+4x+5 is …………………………

6
1.0000000

0.0000000
FBQ14
If A and B are sets and A ∪ B =A ∩ B, then the two sets are ………………….

A=B
1.0000000
Equal
1.0000000
FBQ15
The intersect of the sets {1,2,5} and {1,2,6} is the set ....

{1, 2}
1.0000000

0.0000000
FBQ16
The solution of a quadratic equation is sometimes called _____

Roots
1.0000000

0.0000000
FBQ17
Given the circle , the radius of the circle is………………………

Zero
1.0000000

0
1.0000000
FBQ18
The equation of the line passing through the point (-3,7) with slope zero can be written as …………………

y=7
1.0000000

0.0000000
FBQ19
The Common difference of sequence 2,-2 ,-6,… is …………………

-4
1.0000000

0.0000000
FBQ20
The complex number is represented by ……………………

x+iy
1.0000000

0.0000000
FBQ21
Set that have unlimited numbers of elements are referred to as…………….

infinite set
1.0000000

0.0000000
FBQ22
The radius of the circle with the equation: is _____

5
1.0000000

0.0000000
FBQ23
The sum of -5+ 4i+9+ 6i in standard form (+ bi) is ……………..

4+10i
1.0000000

0.0000000
FBQ24
The cardinality of the Power set of the set {0,1,2} is ………………………………

6
1.0000000

0.0000000
FBQ25
The values of x in equation is ……………………

5 and 1
1.0000000
1 and 5
1.0000000
FBQ26
The union of the sets {1,2,5} and {1,2,6} is the set ....

{1, 2, 5, 6}

1.0000000

1.0000000
FBQ27
The individual objects in a set are called …………………………

element
1.0000000
member
1.0000000
FBQ28
The Common difference of sequence 5,8,11,14,… is

3
1.0000000

0.0000000
FBQ29
Collection of well-defined objects is called a …………………..

set
1.0000000

0.0000000
FBQ30
The set of positive integers is an example of ……………… set

infinite
1.0000000

0.0000000
FBQ31
If AUB=BUA, then the sets A and B are …………….

commutative
1.0000000

0.0000000
FBQ32
The product of 4+iand 4-iis ………………

17
1.0000000

0.0000000
FBQ33
A linear system of equations made up of two intersecting lines has _____ solution(s).

2
1.0000000
two
1.0000000
FBQ34
The Sum of the roots of the quadratic equation 3x2 -5x -2 is …………………

5/3
1.0000000
1.667
1.0000000
FBQ35
The solutions of a quadratic equation x2 + 5x – 6 = 0 are ……………. and …………………

1 , -6
1.0000000
-6, 1
1.0000000
1 and -6
1.0000000
-6 and 1
1.0000000
FBQ36
In standard form a+ bi, 3- 5i--5+ 11i+(9+ 6i) can be reduced to ….

17-10i
1.0000000

0.0000000
FBQ37
Any set that contains a definite number of elements is called ……………….

finite set
1.0000000
finite
1.0000000
FBQ38
One factor of the expression 8x2 – 19x + 6 is x -2. The other is ………………..

8x-3
1.0000000
-3+8x
1.0000000
FBQ39
Expansion of 3-6i2is ………………………

-27-36i
1.0000000

0.0000000
FBQ40
If the difference between the third term and the second term is 12, then the common difference is …………………..

12
1.0000000

0.0000000
FBQ41
If Set D = {x: x is an odd number between 10 and 18}, the elements

{11,13,15,17}
1.0000000

0.0000000
FBQ42
The minimum value of is ……………………

-4
1.0000000

0.0000000
FBQ43
The numerator of the quotient 5-3i2+ 7i in standard form (a+ bi) is …………..

-11-4i
1.0000000

0.0000000
FBQ44
When b2-4ac<0, then the equation has …………………solution.

*two complex *
1.0000000
*2 complex *
1.0000000
FBQ45
The first and seventh terms of a geometric progression are 812 and 329 respectively. Hence, the common ratio is ……………………

2/3
1.0000000
0.667
1.0000000
FBQ46
If two sets have distinct elements, they are said to be ……………………

disjoint
1.0000000

0.0000000
FBQ47
The slope of the linear equation y=12x-2 is ……………………

2/3
1.0000000
0.5
1.0000000
FBQ48
The slope of the linear equationy=-14x+7 is ……………

-1/4
1.0000000
-0.25
1.0000000
FBQ49
If U={a,b,c,d,e}, A={a,c,e} and B={a,b,e}, then (A∩B)=………………

{a,e}
1.0000000

0.0000000
FBQ50
The value of i15is ……………………

-i
1.0000000

0.0000000
Multiple Choice Questions (MCQs)
MCQ1
Evaluate

5

1.0000000
34

0.0000000
7

0.0000000
8

0.0000000
MCQ2

x=3

1.0000000
x=-1

0.0000000
x=-3

0.0000000
x=-9

0.0000000
MCQ3
Find the product of 4 + i and 4 – i.

15

0.0000000
15

0.0000000
17

1.0000000
10

0.0000000
MCQ4
What are the center and radius of ?

0.0000000

0.0000000

1.0000000

0.0000000
MCQ5
Simply

1.0000000

0.0000000

0.0000000

0.0000000
MCQ6
Expand

-27 - 36i

1.0000000
9 + 36i

0.0000000
45

0.0000000
27

0.0000000
MCQ7
Find the next term of each sequence 4 -16, 64, -256 1024, …

-4096

1.0000000
-20058

0.0000000
-1281

0.0000000
-3072

0.0000000
MCQ8
Find the next term of each sequence 4, 16, 36, 64, 100

169

0.0000000
144

1.0000000
164

0.0000000
124

0.0000000
MCQ9
Find the next term of each sequence 4, -12, 36, -108, 324

-972

1.0000000
- 625

0.0000000
-648

0.0000000
-169

0.0000000
MCQ10
Expand and simplify (2x - 1)(x + 3)

x2+x-5

0.0000000
x2+2x-6

0.0000000
x2+3x-1

0.0000000
x2+5x-3

1.0000000
MCQ11
Factorize completely. 9x2-24x-16

(3x-4)2

1.0000000
(9x-4)(x-4)

0.0000000
(3x-8)(3x-2)

0.0000000
(x-8)(9x-2)

0.0000000
MCQ12
(x-3)2 is equal to ____

x2 – 6 x + 9

1.0000000
x2 – 9

0.0000000
x2 + 9

0.0000000
x2 + 6 x + 9

0.0000000
MCQ13
Find an equation whose roots are -2 and 1.

x2+x-2=0

1.0000000
x2+2x-2=0

0.0000000
x2-x-2=0

0.0000000
x2-2x-2=0

0.0000000

MCQ14
When solving a linear system of equations, you are looking for which of the following?

Point(s) of intersection

1.0000000
x intercepts

0.0000000
Roots

0.0000000
Shaded region

0.0000000
MCQ15
A linear system of equations made up of two intersecting lines has _____ solution(s)

two

0.0000000
three

0.0000000
one

1.0000000
no

0.0000000
MCQ16
If the legs of a right triangle measure 5 and 12 cm respectively, the measure of the third side is

21 cm

0.0000000
17cm

0.0000000
15 cm

0.0000000
13 cm

1.0000000
MCQ17
Which of the following is an equation of a circle?

(x + 1)3 = 0

0.0000000
y = 2x2 + x – l

0.0000000
y2 = 16x

0.0000000
x2 + y2 = 9

1.0000000
MCQ18

The set of all y=f(x) values of a relation is called the _____.

range

0.0000000
domian

1.0000000
inverse

0.0000000
function

0.0000000
MCQ19
If a system of equations has one solution, then the equations will have _____.

different slopes

1.0000000
different y intercepts

0.0000000
the same slopes

0.0000000
inverse

0.0000000
MCQ20
The solution(s) of a Quadratic Equation is/are also sometimes called _____.

root(s)

1.0000000
y- intercept(s)

0.0000000
x-intercept(s)

0.0000000
co-domian

0.0000000
MCQ21
The function completely factorized is _____.

1.0000000

0.0000000

0.0000000

0.0000000
MCQ22
All the solution(s) for are ____

1.0000000

0.0000000

0.0000000

0.0000000
MCQ23
What is the Leading Coefficient of ?

6

1.0000000
5

0.0000000
4

0.0000000
3

0.0000000
MCQ24
What is the constant of

5

1.0000000
6

0.0000000
4

0.0000000
3

0.0000000
MCQ25

5

1.0000000
11

0.0000000
3

0.0000000
4

0.0000000
MCQ26
What is the y-intercept of the line determined by the linear equation ?

1.0000000

0.0000000

0.0000000

0.0000000
MCQ27
What is the slope of the linear equation:

-12

1.0000000
-4

0.0000000
4

0.0000000
-12

0.0000000
MCQ28
Which ordered pair(s) are all the y-intercept(s) of the equation:

(0,1)

1.0000000
(0,0)

0.0000000
(1,0)

0.0000000
(0,-1) and (0,2)

0.0000000
MCQ29

never

1.0000000
x = -1

0.0000000
x = -4

0.0000000
x = 0

0.0000000
MCQ30
What is the radius of the circle graphed by the equation:

5

1.0000000
25

0.0000000
4

0.0000000
16

0.0000000
MCQ31
The square root of a number is the same as raising the number to the
----

(1/2) power

1.0000000
second power

0.0000000
(1/3) power

0.0000000
Third power

0.0000000
MCQ32
The x intercept of 2x – 3y = 6 is _____

(3,0)

1.0000000
(0,-2)

0.0000000
(0,-3)

0.0000000
(-3,0)

0.0000000
MCQ33
The domain of, will be any real number _____.

except – 2

1.0000000
except – 3

0.0000000
except 2

0.0000000
except – 1

0.0000000
MCQ34
Expand and express your answer in simplest complex form (3 + 5i)(2 – i)

1.0000000

0.0000000

0.0000000

0.0000000
MCQ35
What is the minimum value of

-6

1.0000000
12

0.0000000
-2

0.0000000
5

0.0000000
MCQ36

1.0000000

0.0000000

0.0000000

0.0000000
MCQ37

5and 1 only

1.0000000
no solution

0.0000000
1only

0.0000000
5 only

0.0000000
MCQ38
Approximate the distance between the points (-3, 19), (-7, -5) to the nearest tenth:

24.3

1.0000000
17.2

0.0000000
5.3

0.0000000
6.3

0.0000000
MCQ39
The number of elements in the Power set P(S) of the set S={[∅], 1, [2,3]}

is

4

1.0000000
2

0.0000000
8

0.0000000
6

0.0000000
MCQ40
If A and B are sets and A ∪ B =A ∩ B, then

A=B

1.0000000
A=∅

0.0000000
B=∅

0.0000000
A≠B

0.0000000
MCQ41
The union of the sets {1,2,5} and {1,2,6} is the set ....

{1,2,5,6}

1.0000000
{1,2,1,2}

0.0000000
{1,5,6,3}

0.0000000
{1,2,6,1}

0.0000000
MCQ42
The intersection of the sets {1,2,5} and {1,2,6} is the set ……………

{1,2}

1.0000000
{5,6}

0.0000000
{2,5}

0.0000000
{1,6}

0.0000000
MCQ43
Two sets are called disjoint if their ………….. is empty set.

intersection

1.0000000
complement

0.0000000
Difference

0.0000000
Union

0.0000000
MCQ44
Which of the following two sets are disjoint?

{1,3,5}and{2,4,6}

1.0000000
{1,3,5}and{2,3,4}

0.0000000
{1,2,3,}and{1,2,3}

0.0000000
{1,3,5}and{1,3,6,}

0.0000000
MCQ45
The complement of the set A is ………..

element not in A but in the universal set

1.0000000
Universal set union A

0.0000000
some of the element in A

0.0000000
A

0.0000000
MCQ46
Individual objects in a set are called …………..

element

1.0000000
set

0.0000000
list

0.0000000
not element

0.0000000
MCQ47
Set {x: x is an odd number between 10 and 18}

{11,13,15,17}

1.0000000
{12,14,16,18}

0.0000000
{12,16,15,13}

0.0000000
{11,12,13,15,17}

0.0000000
MCQ48
Polar form of a complex number is ………………

r(cosθ+ isinθ)

1.0000000
r(sinθ+ icosθ)

0.0000000
r(secθ+ icosecθ)

0.0000000
r(tanθ+ icotθ)

0.0000000
MCQ49
a2 + b2 is equal to ……………

(a+ib)(a-ib)

1.0000000
(a+ib)(a-b)

0.0000000
(a+ib)(a-ib)

0.0000000
(a+b)(a-b)

0.0000000
MCQ50
The solution of a quadratic equation x2 + 5x – 6 = 0 is

x=1,x=-6

1.0000000
x=1, x=0

0.0000000
x= 5, x=2

0.0000000
x= -1, x=3

0.0000000