Ninth Grade - Complex Number

1) Complete the following $i^3 = ?$

- 1
- -1
- -i
- i

2) Complete the following $i^{13}? = ?$

- -i
- 1
- i
- -1

3) Complete the following $i^1? = ?$

- -1
- -i
- 1
- i

4) Complete the following i???? = ?

- i
- -i
- -1
- 1

5) The real part of i is

- 3
- 5
- 0
- 1

6) What does $e^{i?}$ stands for ?

- sin? – i cos?
- cos? + i sin?
- i sin? + cos?
- cos? - i sin?

7) Compute the given number ?-144 =?

- 12i
- 13i
- -12i
- -13i

8) Compute the given number ?-169 = ?

- i + 13
- 13i
- i - 13
- 13/i

9) Compute the given ?-4 × ?-9/4

- -1
- -3
- -4
- -2

10) If $z = 2 - iy$ and $z = x + 3i$ then find x and y.

- -4,-4
- 2,-3
- -2, 3
- -3, 2

11) Find the real values of x and y if $(3x - 7) + 2iy = -5y + (5 + x)i$

- x = 2 , y = -2
- x = -2 , y = -2
- x = 1 , y = 2
- x = -1 , y = 2

12) Find the values of x and y if $(x + iy)(2 - 3i) = 4 + i$

- (15 - 17) , (15 + 13)
- (15/13) , (14/13)
- (15/17) , (15/13)
- (15 + 13) , (14 - 13)

13) Find the values of x and y if $(1 - i)x + (1 + i)y = 1 - 3i$

- -2, 1
- -1,-2
- 1, 2
- -1, 2

14) Find the value for the relation.

- z2
- z1

- 5(
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15) Find real values of x and y$(1 + i)y^2 + (6 + i) = (2 + i)x$

- 5 , ±2
- 4 , ±7
- 3 , ±6
- 7 , ±3

16) Solve the equations $4x^2 + 9 = 0$ by factorization method.

- (3/2)i
- (4/2)i
- -(4/2)i
- -(3/2)i

17) Solve the equation $x^2 - 4x + 13 = 0$ by factorization method.

- 5 - 2i , -4 + 3i
- – 3 - 2i, 3 + 2i
- -2 - 3i , 4 – 3i
- 2 + 3i , 2 – 3i

18) Solve the equation $x^2 - 5ix – 6 = 0$ by factorization method.

- 3i, - 2i
- 3i, 2i
- 5i, 4i
- 7i, -8i

19) Solve the equation $x^2 + 4ix - 4 = 0$ by factorization method.

- 4i, 4i
- -4i + 4i
- 2i, 2i
- -2i, -2i

20) Solve the equation $3x^2 + 7ix + 6 = 0$ by factorization method.

- 4i, (2/3)i
- 3i, (2/3)i
- 8i, (3/4)i
- -3i, (2/3)i

21) Solve the equation $x^2 + 1 = 0$ by factorization method.

- ±4
- ±3
- ±1
- ±2

22) Solve the equation $9x^2 + 4 = 0$ by factorization method.

- ± i(3/2)
- ± i(5/3)
- ± i(2/3)
- ± i(9/3)

23) Solve the equation $2x^2 - 4x + 3 = 0$ by formula method.

- x = (2 ± (1 / ?5)i)
- x = (-1 ± (1 / ?2)i)
- x = (1 ± (1 / ?2)i)
- x = (7 ± (6 / ?9)i)

24) Solve the equation $27x^2 - 10x + 1 = 0$ by formula method.

- x = -(5 ± i?2)/24
- x = (-5 ± i?3)/27
- x = (9 ± i?3)/25
- x = (5 ± i?2)/27

25) Solve the equation $- x^2 + x - 2 = 0$ by formula method.

- x = 1 ± i ?5/-2
- x = -1 ± i ?7/-2
- x = 1 ± i ?9/-2
- x = -1 ± i ?7/2

26) Solve the equation $x^2 - 2x + (3/2) = 0$ by formula method.

- ±(i /?2)
- 2 ± (i/?9)
- 2 ± (i/?5)
- 1 ± (i/?3)

27) Solve the equation $2x^2 + 3ix + 2 = 0$ by formula method.

- x = i / 3 or -2i
- x = i / 4 or -4i
- x = i / 8 or -8i
- x = i / 2 or -2i

28) Solve the equation $i\,x^2 - x + 12i = 0$ by formula method.

- x = (5/i) or (- 3i)
- x = (4/i) or (- 3i)
- x = (-4/i) or (3i)
- x = (6/i) or (-3i)

29) Solve the equation $x^2 + x + (1 /?2) = 0$

- x = 2 ± i?(2?3 - 1)/4
- x = -2 ± i?(2?3 - 1)/3
- x = -3 ± i?(3?2 -1)/6
- x = -1 ± i?(2?2 -1)/2

30) Solve the equation $x^2 - 8x + 24 = 0$ by completing the square method.

- x = 4 ± 2?2i
- x = - 4 ± 2?2i
- x = 3 ± 3?2i
- x = 5 ± 5?2i