Eleventh Grade - Algebra

1) Find the zeroes of the following quadratic polynomial: $x^2 - 2x - 8$

- (2, -4)
- (5, 4)
- (-2, 4)
- (7, 4)

2) Find the zeroes of the following quadratic polynomial $4s^2 - 4s + 1$

- 5/2
- 3/4
- 1/2
- 2/3

3) Find the zeroes of the following quadratic polynomial $6x^2 - 3 - 7x$

- (-1/3, 7/2)
- (-1/4, 5/8)
- (1/2, 3/2)
- (-1/2, 3/2)

4) Find the zeroes of the following quadratic polynomial: $4u^2 + 8u$

- (0, 3)
- (0, -2)
- (0, -1)
- (5, 0)

5) Find the zeroes of the following quadratic polynomial: $t^2 - 15$

- ±?15
- ±?11
- ±?18
- ±?19

6) Find the zeroes of the following quadratic polynomial $3x^2 - x - 4$

- (7/3, 1)
- (2/3, -1)
- (4/3, 1)
- (2/3, -2)

7) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively 1/4, -1

- $6x^2 - 3x - 1$
- $4x^2 - x - 1$
- $6x^2 - x - 2$
- $8x^2 - 4x - 7$

8) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively ?2, 1/3

- $4x^2 - 5?2x + 4$
- $7x^2 - 6?2x + 5$
- $3x^2 - 3?2x + 1$
- $3x^2 - 4?2x + 2$

9) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively 0, ?5

- $2x^2 + ?5$
- $x^2 + ?8$
- $x^2 + ?7$

- $x^2 + ?5$

10) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively: 1, 1

- $x^2 - x + 1$
- $x^2 + x + 9$
- $x^2 - 2x + 3$
- $x^2 - 2x + 8$

11) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively: -1/4, 1/4

- $4x^2 + 4x + 1$
- $4x^2 + 5x + 5$
- $4x^2 - x - 1$
- $4x^2 + x + 1$

12) Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively: 4, 1

- $2x^2 - 5x + 3$
- $2x^2 - 4x + 5$
- $3x^2 - 4x + 3$
- $x^2 - 4x + 1$

13) Given the linear equation $2x + 3y – 8 = 0$; write another linear equation in two variables such that the geometrical representation of the pair so formed is Intersecting lines.

- $4x + 4y – 8 = 0$
- $4x + 12y – 3 = 0$
- $6x + 7y – 8 = 0$
- $8x + 9y – 18 = 0$

14) Given the linear equation 2x + 3y – 8 = 0; write another linear equation in two variables such that the geometrical representation of the pair so formed is Parallel lines.

- 4x + 6y – 12 = 0
- 7x + 7y – 7= 0
- 5x + 6y – 10 = 0
- 7x + 8y – 12 = 0

15) Given the linear equation 2x + 3y – 8 = 0; write another linear equation in two variables such that the geometrical representation of the pair so formed is Coincident lines

- 5x + 7y – 10 = 0
- 4x + 9y – 12 = 0
- 9x + 6y – 10 = 0
- 4x + 6y – 16 = 0

16) Solve the following pair of linear equations by the substitution method. x + y = 14 and x – y = 4

- (9, 5)
- (8, 7)
- (5 ,9)
- (7, 8)

17) Solve the following pair of linear equations by the substitution method. s – t = 3 and s/3 + t/2 = 6

- (7, 8)
- (9, 6)
- (7, 10)
- (4, 7)

18) Solve the following pair of linear equations by the substitution method. 3x – y = 3 and 9x – 3y = 9

- (4, 6)
- (7, 9)
- No solution
- (3, 1)

19) Solve the following pair of linear equations by the substitution method. 0.2x + 0.3y = 1.3 and 0.4x + 0.5y = 2.3

- (2, 3)
- (5, 7)
- (4, 5)
- (5, 3)

20) Solve the following pair of linear equations by the substitution method ?2x + ?3y = 0 and ?3x - ?8y = 0

- (0, 1)
- (0, 0)
- (1, 1)
- (1, -1)

21) Check whether $(x + 1)^2 = 2(x – 3)$ is

- Quadratic equation
- Not an Quadratic equation
- Can’t determine
- Data inadequate

22) Check whether $x^2 – 2x = (-2) (3 – x)$ is

- Data inadequate
- Not an Quadratic equation
- Can’t determine

- Quadratic equation

23) Check whether $(x – 2)(x + 1) = (x – 1)(x + 3)$

- Data inadequate
- Quadratic equation
- Can’t determine
- Not an Quadratic equation

24) Check whether $(x – 3)(2x + 1) = x(x + 5)$ is

- Can’t determine
- Not an Quadratic equation
- Quadratic equation
- Data inadequate

25) Check whether $(2x – 1)(x – 3) = (x + 5)(x – 1)$ is

- Can’t determine
- Data inadequate
- Quadratic equation
- Not an Quadratic equation

26) Check whether $x^2 + 3x + 1 = (x – 2)^2$ is

- Quadratic equation
- Not an Quadratic equation
- Data inadequate
- Can’t determine

27) Check whether $(x + 2)^3 = 2x(x^2 – 1)$ is

- Quadratic equation
- Not an Quadratic equation
- Data inadequate
- Can’t determine

28) Check whether $x^3 – 4x^2 – x + 1 = (x – 2)^3$ is

- Can’t determine
- Data inadequate
- Quadratic equation
- Not an Quadratic equation

29) The area of a rectangular plot is 528 m^2. The length of the plot (in meters) is one more than twice its breadth. We need to find the length and breadth of the plot.

- $2x^2 + 3x – 528 = 0$
- $4x^2 + 3x – 528 = 0$
- $3x^2 + 3x – 528 = 0$
- $2x^2 + x – 528 = 0$

30) The product of two consecutive positive integers is 306. We need to find the integers.

- $3x^2 + 2x – 306 = 0$
- $2x^2 + 2x – 306 = 0$
- $x^2 + x – 306 = 0$
- $x^2 + 2x – 306 = 0$