

# Angel Kids International School

## Summative Assessment – I

Name:-

Date:-

Class:- 9<sup>th</sup>

Sub:- Maths

Roll No.:-

Marks:- 80

### INSTRUCTIONS:-

- SECTION A :- Question numbers 1 to 20 comprises of 20 questions of **one** mark each
- SECTION B:- Question numbers 21 to 26 comprises of 6 questions of **two** marks each.
- SECTION C :- Question numbers 27 to 34 comprises of 8 questions of **three** marks each.
- SECTION D :- Question numbers 35 to 40 comprises of 6 questions of **four** marks each.
- There is no overall choice in the question paper. However, an internal choice has been provided in 2 questions of one mark, 2 questions of two marks, 3. Questions of four marks. You have to attempt only one of the choices in such questions.
- In addition to this, separate instructions are given with each section and question, wherever necessary.
- Use of calculators is not permitted.

### SECTION A

#### Question no. 1 to 10 multiple choice questions.

1. The probability of an event of a trial is always.  
a. 1                      b. 0                      c. more than 1                      d. between 0 and 1
2. The area of a triangle with base 8cm and height 10cm is  
a.  $80\text{cm}^2$                       b.  $40\text{cm}^2$                       c.  $20\text{cm}^2$                       d.  $18\text{cm}^2$
3. With the help of a ruler and compass, it is possible to construct an angle of  
a.  $40^\circ$                       b.  $65^\circ$                       c.  $37.5^\circ$                       d.  $50^\circ$
4. If two complementary angles are in the ratio 2:3 then the angles are  
a.  $58^\circ, 32^\circ$                       b.  $50^\circ, 40^\circ$                       c.  $56^\circ, 34^\circ$                       d.  $36^\circ, 54^\circ$
5. Linear equation such that each point on its graph has its ordinate equal to twice its abscissa is

a.  $x + y = 2$

b.  $y = 2x$

c.  $x = 2y$

d.  $x - y = 2$

6. points  $(-3, 9)$  lies

a. in the third quadrant

b. in the second quadrant

c. on the negative direction of y-axis

d. in the fourth quadrant

7. Degree of which polynomial is 0?

a.  $x$ 

b. 15

c.  $y$ d.  $x + x^2$ 8. Which of the following is a zero of the polynomial  $x^2 - 5x + 6$ ?

a. 3

b. -3

c. 5

d. 6

9.  $(3 + \sqrt{3})(3 - \sqrt{3})$  on simplification becomes equal to

a. 18

b.  $2\sqrt{3}$ 

c. 6

d. 9

10. The probability of an impossible event is

a. 1

b. less than 1

c. 0

d. more than 1

**Questions no. 11 to 15 fill in the blanks.**

11. Every irrational number is a ----- number.

12. If three or more points lie on the same line, they are called ----- points.

13. The point of intersection of the coordinate axes is called the -----

14. Simplify  $7^{\frac{1}{2}} \times 7^{\frac{1}{2}} =$  -----15. Identity  $x^2 - y^2 =$  -----**Answer the following questions number 16 to 20**16. Express  $\frac{\sqrt{7}}{\sqrt{5}+1}$  with a rational denominator.

17. In which quadrants do the following points lie?

a.  $(3, 5)$ b.  $(6, -7)$ 

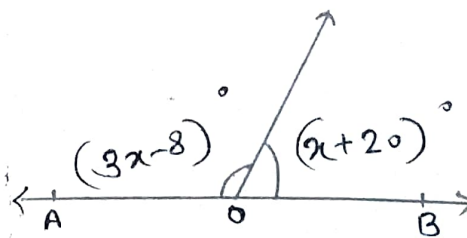
18. Write the degree of each of the following polynomial.

a.  $5x^3 + 4x^2 + 7x$ 

b. 3

19. A triangle ABC in which  $AB = AC = 4\text{cm}$  &  $\angle A = 90^\circ$  then find an area.

20. If in the given figure OA &amp; OB are opposite rays, and then find the value of x.



## SECTION B

21. In a sample of 365 items, 125 are found to be defective. Find the probability of an item selected at random being

a. Defective

b. not defective

22. Classify the following numbers as rational or irrational.

a. 0.3796

b.  $\sqrt{23}$

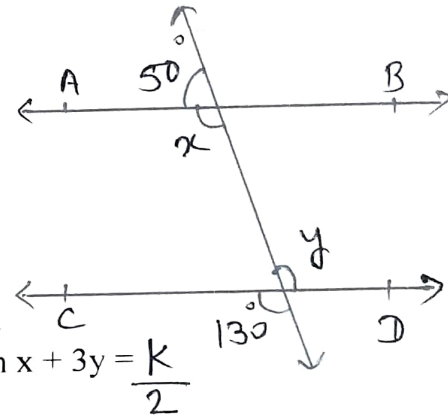
c.  $\frac{2\sqrt{7}}{7\sqrt{7}}$

d.  $2 - \sqrt{5}$

23. Plot the points (x, y) given in the following table on the graph.

X	-3	1	0	6	3
Y	4	3	-2.5	5	-4

24. In fig. find the value of x & y and then show that  $AB \parallel CD$



$$x = -2$$

25. Find the value of K, if  $x = -2$  &  $Y = 2$  is a solution of the equation  $x + 3y = \frac{K}{2}$

26. Construct an angle of  $30^\circ$  and write steps of construction.

## SECTION C

27. Sides of a triangle are in the ratio of 12:17:25 and its perimeter is 540cm. Find its area.

28. Write  $(2x + 1)^3$  in the expanded form.

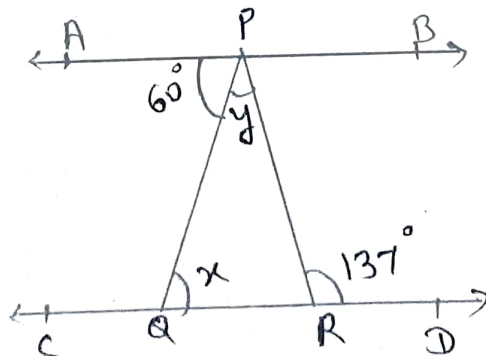
29. Express  $1.\overline{38}$  in the form of  $\frac{p}{q}$ .

30. Factorise  $6x^2 + 19x + 10$

31. Show that  $(x + 3)$  is a factor of the polynomial  $x^4 + x^3 - 7x^2 - x + 6$

32. Write four solutions for the equation.  $2x + y = 7$

33. In the given figure, if  $AB \parallel CD$ ,  $\angle APQ = 60^\circ$  and  $\angle PRD = 137^\circ$  then find x & y



34. Expand  $(x + 2y + 4z)$  using suitable identities.

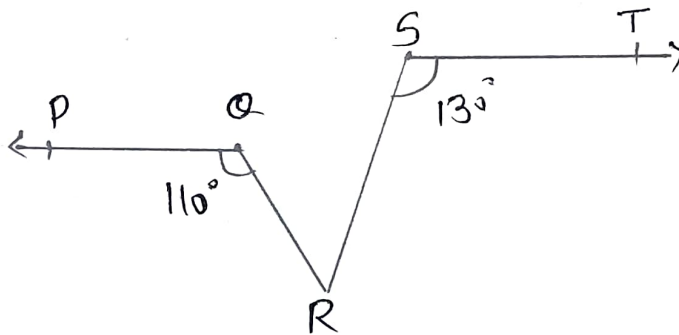
## SECTION D

35. Construct a triangle ABC in which  $BC=7\text{cm}$ ,  $\angle B=75^\circ$  &  $AB+AC=13\text{cm}$

**OR**

Construct a triangle ABC in which  $BC=8\text{cm}$ ,  $\angle B=45^\circ$  &  $AB-AC=3.5\text{cm}$

36. IN fig, if  $PQ \parallel ST$ ,  $\angle PQR = 110^\circ$  and  $\angle RST = 130^\circ$ , find  $\angle QRS$ .



37. A die is thrown 400 times with the frequencies for the outcomes 1, 2, 3, 4, 5, 6 as given in the following table.

Outcome	1	2	3	4	5	6
Frequency	72	65	70	71	63	59

**Find the probability of**

- a. Getting a number less than 3
- b. Getting an outcome 6
- c. Getting a number more than 4
- d. Getting an outcome 2

38. Find the zeroes of the given polynomial.

a.  $2x^2 + 5x - 12$

b.  $(x+1)(x+3)$

39. Rationalise the denominator of  $\frac{5}{4\sqrt{3}-3\sqrt{2}}$ ,

40. There is a slide in a park. One of its side walls has been pointed in some colour with a message "keep the park green and clean". If the sides of the walls are 15m, 11m, 6m, find the area pointed in colour.

