St John Baptist De La Salle Catholic School, Addis Ababa

# Grade 9 Mathematics Entrance Examination

July, 2023

Name: Roll Number: Section: Time Allowed: **30 minutes Multiple Choice Questions**

1. Which one of the following statements is not true?
   1. The square of a real number is always positive B. The cube of a real number can be negative

C. The cube root of a number can be negative D. The square of a real number can be negative

1. Consider an integer *n*, such that 3 *< n <* 7. What is the probability that when *n* is selected at random, n is 0?

*−*

1 1

* 1. B.

9 8

1 1

C. D.

10 7

3.A right angled triangle also happens to be isosceles, what are the measures of its interior angle?

A. 900*,* 300*,* 600 B. 900*,* 450*,* 450 C. 600*,* 600*,* 600 D. 900*,* 100*,* 800

4.A quadrilateral is inscribed in a circle. If one of its angles measures 100 0, what is the value of the angle opposite to it?

A. 700 B. 800 C. 900 D. 1000

5.What is the value of . *√*1024?

..√

A. 2 B. *√*2 C. 2*√*2 D. *√*32

6.A 12m high pole casts a shadow of 5m. What is the distance from the top of the pole to the tip of the shadow?

A. 12 m B. 13 m C. 5 m D. 17 m

1. Which one of the following set of numbers can’t be assigned to the lengths of the sides of a right angled triangle?

A. 4,3,5 B. 6,8,10 C. 12,3,15 D. 2,2,4

1. Which of the following is true?
   1. *√a* = *a*2 B. *√a* = *a* 1 C. *axy* = *axy* D. *axay* = *ay*

3

*x*

1. For the expression

2*y*

, what are the limitations we have?

*x*

A. *x ̸*= *y* B. *y ̸*= 0 C. *x ̸*= 0 D. *x ̸*= 1

1

1. If *a−*1

2

= *x* , where *a* ¿ 0 and *x* ¿ 0, which of the following equations gives *a* in terms of *x*?

1 1 *√* 2

* 1. *a* = *√x* B. *a* = *x*2 C. *a* = *x* D. *a* = *−x*

11.A farmer can pick 12 cabbages in 1 hour. Working at the same rate, how long in hours would it take two farmers to pick 48 cabbages?

A. 1 B. 2 C. 6 D. 4 E. 8

1. Which of the following is NOT a positive multiple of 9 + 3?

A. 3 B. 12 C. 24 D. 48 E. 60

1. Lydia can run at a pace of 6 miles per hour. Running at the same rate, how many miles can she run in 90 minutes?

A. 4 B. 6 C. 8 D. 9 E. 12

1. Two consecutive integers *m* and *n* are prime numbers. Which of the following is equal to

*mn*?

A. 1 B. 2 C. 6 D. 9 E. 15

1. If *x* + 1 = 23, what is the value of 3*x* + 3? A. 22 B. 46 C. 66 D. 69 E. 72

**Answer Sheet**

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| --- | --- | --- |
| 1. | 6. | 11. |
| 2. | 7. | 12. |
| 3. | 8. | 13. |
| 4. | 9. | 14. |
| 5. | 10. | 15. |

Page 2