

# Mathematics Admissions Exam

## Learning Outcomes and Sample Questions

Subject	Mathematics		
Grade of Entry	6		
Admission Year	AY 2023-2024		
Exam Specifications	Number of Questions	20	(5 marks each question)
	Type of Questions	Multiple Choice	(with 4 Options)
	Exam Duration	45 minutes	
	Calculators	Not Allowed	
	Language	Questions are written both in English and Arabic	

### Learning Outcomes Tested for Entry to Grade 6: Mathematics

The Mathematics part of the Admissions exam is made up of questions that are derived from the below learning Outcomes:

1. Determine volumes of rectangular prisms
2. Place value and number relationships (Understand the structure of multi-digit numbers, extend place value to decimals, and compare and order decimals)
3. Solve multi step problems involving addition and subtraction of whole numbers such as finding a missing value in a number sentence
4. Add and subtract decimals
5. Estimate sums, differences, or products of decimals by rounding to the nearest whole number, tenth or hundredth
6. Multiply numbers and decimals by multiples of 10
7. Divide numbers and decimals by multiples of 10
8. Multiply multi-digit whole numbers
9. Round whole numbers to the nearest 100, 1000, 10000 or 100000
10. Estimate products of multi-digit whole numbers by rounding to the nearest 100, 1000, 10000, or 100000
11. Multiply and divide whole and decimal numbers
12. Estimate quotients of whole numbers by rounding to the nearest whole number
13. Solve real-life problems involving division and multiplication
14. Multiply fractions and simplify to their simplest form
15. Add and subtract fractions with like and unlike denominators
16. Solve real life problems involving adding and subtracting fractions with unlike denominators
17. Express fractions as mixed numbers
18. Represent shaded parts in figures as a fraction of the whole figure
19. Find the coordinates of a given point in the coordinate plane

## Sample Questions for Entry to Grade 6: Mathematics

All questions in the exam will be translated in Arabic as in Question 1 below.  
Q2-Q10 in this sample set are only in English for practice.

1. Estimate  $7.203 + 4.598$  by rounding to the nearest hundredth.

قدّر  $7.203 + 4.598$  بالتقريب لأقرب جزء من مئة.

- A. 11.80
- B. 11.34
- C. 10.92
- D. 10.80

2. Estimate the quotient of  $19561 \div 4456$  by rounding to the nearest whole number.

- A. 3
- B. 4
- C. 5
- D. 6

3. Which is the best estimate of  $60.6 + 89.1$ ?

- A. 130
- B. 140
- C. 150
- D. 160

4. What is the place value of the digit 5 in 2.568 ?

- A. Hundredth
- B. Tenth
- C. Ones
- D. Tens

5. 42 students are equally distributed in 6 sports groups. How many students are in each group?

- A.  $\frac{1}{7}$  students per group
- B.  $\frac{1}{6}$  students per group
- C. 6 students per group
- D. 7 students per group

6. What is the value of  $\frac{2}{8} \times \frac{64}{16}$ ?

- A.  $\frac{21}{51}$
- B.  $\frac{7}{51}$
- ✓ C. 1
- D. 7

7. What is the value of  $(7 \times 10000) + (8 \times 1000) + (6 \times 100) + (2 \times 10)$

- A. 78062
- ✓ B. 78620
- C. 7862
- D. 78602

8. Find the missing number in the below number sentence

$$18 + 12 + 1004 = 18 + 12 + 4 + \underline{\hspace{2cm}}$$

- A. 996
- B. 100
- ✓ C. 1000
- D. 104

9. What is the value of  $2 \times \frac{3}{6}$ ?

- A. 4
- ✓ B. 1
- C.  $\frac{2}{3}$
- D.  $\frac{1}{2}$

10. Find the volume of the figure shown below

- A.  $40 \text{ cm}^3$
- B.  $80 \text{ cm}^3$
- ✓ C.  $160 \text{ cm}^3$
- D.  $180 \text{ cm}^3$

