

# CADET COLLEGE PETARO

## CLASS-PRE O LEVEL

### Syllabus Outlines for MATHEMATICS Paper

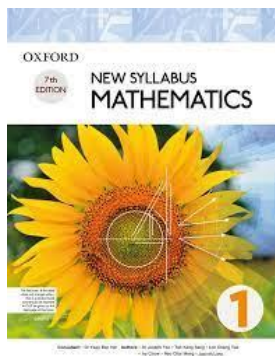
1. Primes, Highest Common Factor and Lowest Common Multiple
2. Integers, Rational Numbers and Real Numbers
3. Approximation and Estimation
4. Basic Algebra and Algebraic Manipulation
5. Linear Equations and Simple Inequalities
6. Functions and Linear Graphs
7. Number Patterns
8. Percentage
9. Ratio, Rate, Time and Speed
10. Basic Geometry
11. Triangles, Quadrilaterals and Polygons
12. Geometrical Constructions
13. Perimeter and Area of Plane Figures
14. Volume and Surface Area of Prisms and Cylinders
15. Statistical Data Handling

# REFERENCE BOOKS

## 1) New Syllabus D Mathematics

7<sup>th</sup> Edition Book-1

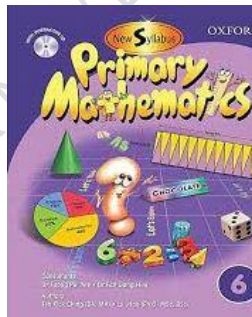
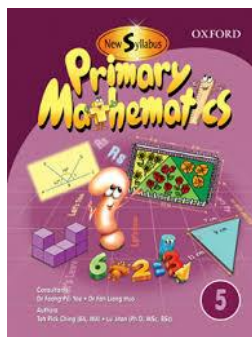
by Oxford University Press (OUP)



## 2) New Syllabus Primary Mathematics

Book-5 & Book-6

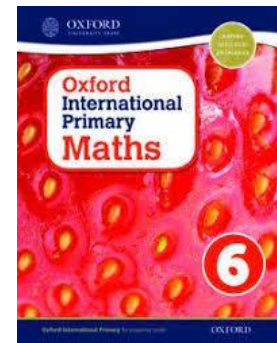
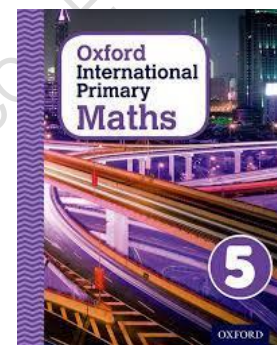
by Oxford University Press (OUP)



## 3) Oxford International Primary Maths

Book-5 & Book-6

by Oxford University Press (OUP)



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## CLASS-PRE O LEVEL MODEL TEST PAPER MATHEMATICS

Time: 1 Hour

Max. Marks: 100

### SECTION A

NOTE: Attempt all 15 MCQ's. Fill the correct option in the space given at the end of each question.

1. Which of these is an Integer?

- A.  $\frac{7}{10}$
- B. 6.5
- C. -12
- D.  $-2\frac{3}{8}$

Answer: (    )

2. Which number has the Prime Factors,  $2 \times 3^2 \times 5$ ?

- A. 13
- B. 30
- C. 60
- D. 90

Answer: (    )

3. What is the value of  $3 + 4 \times 5 - 1$ ?

- A. 11
- B. 22
- C. 34
- D. 59

Answer: (    )

4. Which statement is true?

- A.  $-14 > -28$
- B.  $-25 > 1$
- C.  $-12 > -10$
- D.  $-15 > 0$

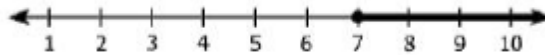
Answer: ( )

5. What is another way to write 1,064?

- A.  $(1 \times 10^2) + (6 \times 10^1) + (4 \times 10^0)$
- B.  $(1 \times 10^3) + (6 \times 10^1) + (4 \times 10^0)$
- C.  $(1 \times 10^3) + (6 \times 10^2) + (4 \times 10^1)$
- D.  $(1 \times 10^4) + (6 \times 10^2) + (4 \times 10^1)$

Answer: ( )

6. Which number represent all this graph?



sentence can be used to the values of n shown on

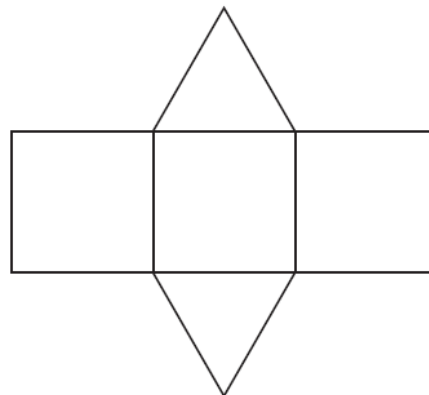
- A.  $n > 7$
- B.  $n \geq 7$
- C.  $n < 7$
- D.  $n \leq 7$

Answer: ( )

7. Use the picture to answer the question.

Which solid figure does the net represent?

- A. Cone
- B. Cylinder
- C. Triangular Prism
- D. Rectangular Prism



Answer: ( )

8. What value of  $x$  correctly completes the equation,  $12 + x = 16\frac{1}{4}$ ?

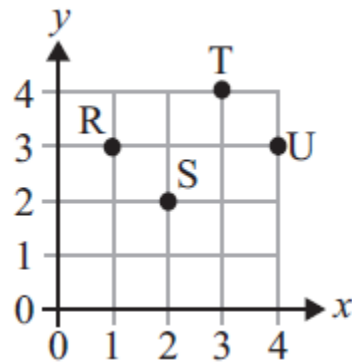
- A.  $3\frac{3}{4}$
- B.  $4\frac{1}{4}$
- C.  $27\frac{3}{4}$
- D.  $28\frac{1}{4}$

Answer: ( )

9. Use the grid to answer the question.

Which point is described by the ordered pair (3, 4)?

- A. point R
- B. point S
- C. point T
- D. point U



Answer: ( )

10. A family of 2 adults and 3 children went to a movie. The tickets cost Rs.80 for adults and Rs.50 for children. Which expression represent the total cost of the tickets?

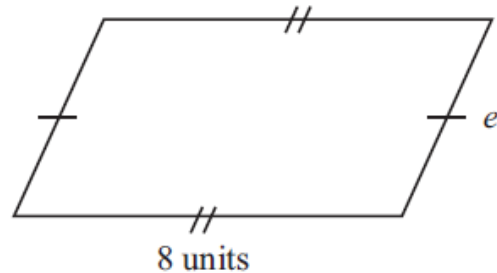
- A.  $2 + 3 + 80 + 50$
- B.  $(50 \times 80) + (3 \times 2)$
- C.  $(2 \times 80) + (3 \times 50)$
- D.  $(3 \times 80) + (2 \times 50)$

Answer: ( )

11. Use the parallelogram to answer the question.

The perimeter of the parallelogram is 28 units.  
What is the length of side  $e$ ?

- A. 6 units
- B. 8 units
- C. 12 units



D. 20 units

Answer: ( )

12. Altogether, Saram and Noman have Rs.27.00. Saram buys a shirt for Rs.12.35 and Noman buys a pair of sandals for Rs.10.11. How much money remains?

A. Rs.4.46

B. Rs.4.54

C. Rs.5.36

D. Rs.5.76

Answer: ( )

13. Use the bar graph to answer the question.

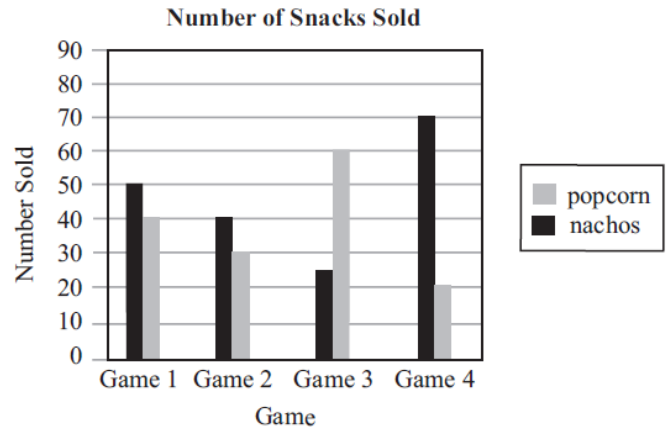
The graph shows the number of snacks sold at the 4 games. At which game were the fewest snacks sold?

A. Game 1

B. Game 2

C. Game 3

D. Game 4



Answer: ( )

14. Which symbol can be placed in the box to make the following an expression?

$$12 - 3x \square 5$$

A.  $\leq$

B.  $>$

C.  $=$

D.  $+$

Answer: ( )

15. Which phrase is represented by  $3(8 - n) + 2$ ?

A. The sum of two and three times the quotient of eight and a number,  $n$

B. The sum of two and three times the difference between a number,  $n$ , and eight

C. Two more than the difference between three times a number,  $n$ , and eight

D. Two more than three times the difference between eight and a number,  $n$

Answer: ( )

## SECTION B

NOTE: Attempt all the questions. Show the working clearly and write answer in the given space after each question.

Q-1

i) Find the Lowest Common Multiple of the following: [ 4 ]

3, 8, 16

Answer: \_\_\_\_\_

ii) Simplify the following expression: [ 4 ]

$$6(7c - 2) - 4(c - c^2 - 8)$$

Answer: \_\_\_\_\_

iii) Solve the following equation [ 4 ]

$$\frac{2x - 2}{3} = 4$$

Answer: \_\_\_\_\_

iv) Find the new temperature for each of the following. [ 4 ]  
You may need to draw a Number Line.

(a) The temperature was  $-13.58^{\circ}\text{C}$  and rises by  $19.1^{\circ}\text{C}$ .

(b) The temperature was  $-1.66^{\circ}\text{C}$  and falls by  $7.7^{\circ}\text{C}$ .

Answer: (a) \_\_\_\_\_, (b) \_\_\_\_\_

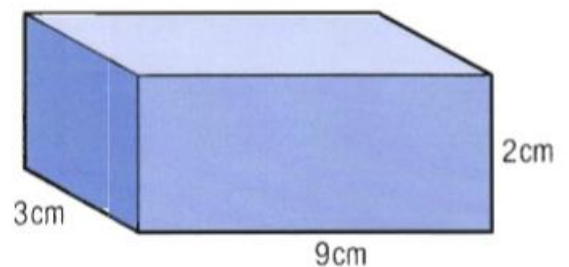
v) Find the Highest Common Factor of the following numbers. [ 4 ]

21, 42, 56.

Answer: \_\_\_\_\_

Q-2

i) Calculate the Volume of the Cuboid shown. [ 2 ]





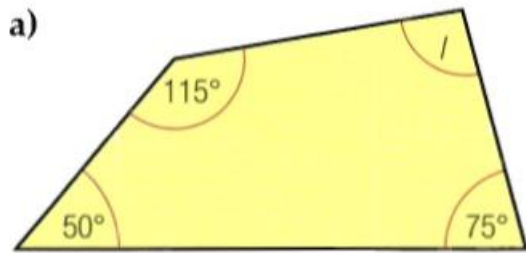
Answer: \_\_\_\_\_

ii) Find the Mean, Median, Mode and Range of this set of data. [ 5 ]

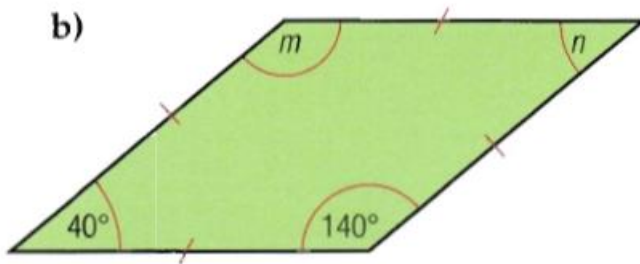
1, 1, 1, 1, 2, 2, 3, 4, 4, 4, 4, 4, 5, 5, 6.

Answer: Mean= \_\_\_\_\_, Median= \_\_\_\_\_, Mode= \_\_\_\_\_, Range= \_\_\_\_\_

iii) Work out the size of each of the unknown angles in these diagrams. [ 3 ]



Answer: (a) = \_\_\_\_\_



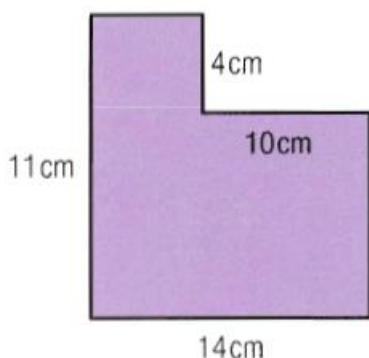
Answer: (b)  $m =$  \_\_\_\_\_,  $n =$  \_\_\_\_\_

Q-3

- i) Jamil spends  $\frac{1}{3}$  of his pocket money on sweets. He saves  $\frac{1}{9}$  of his pocket money. [ 2 ]  
 What fraction of his pocket money is left?

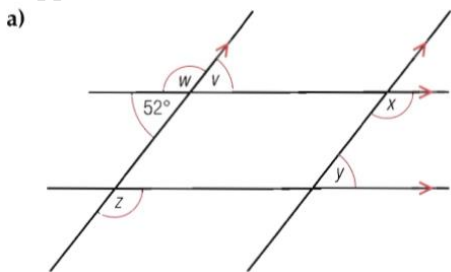
Answer: \_\_\_\_\_

- ii) Calculate the Area and Perimeter of this shape. [ 6 ]



Answer: Area = \_\_\_\_\_  $\text{cm}^2$ , Perimeter = \_\_\_\_\_  $\text{cm}$

- iii) Work out the size of each of the unknown angles in the diagrams. [ 5 ]



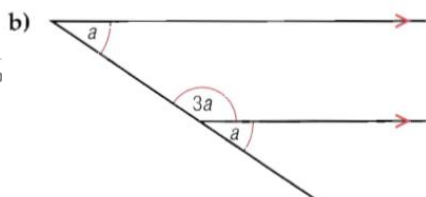
Answer: (a)  $v =$  \_\_\_\_\_

$w =$  \_\_\_\_\_

$x =$  \_\_\_\_\_

$y =$  \_\_\_\_\_

$z =$  \_\_\_\_\_



[ 3 ]

Answer: (b) a = \_\_\_\_\_

Q-4

i) Evaluate the following:

[ 4 ]

(a)  $\frac{5}{18} - \frac{8}{9} + \frac{5}{6}$

(b)  $\frac{2}{13} + \frac{5}{13} + \frac{3}{13}$

Answer: (a) \_\_\_\_\_, (b) \_\_\_\_\_

ii) Complete this table.

[ 6 ]

Fraction	Decimal	Percentage
1/2		%
	0.25	%
		75 %

Answer:

iii) Complete the following statements, writing one the signs =, > or < to make each statement true. [ 4 ]

(a)  $8 \times 8$  \_\_\_\_\_  $4 \times 4 \times 4$

(b)  $100 \text{ cm}$  \_\_\_\_\_  $1000 \text{ mm}$

(c)  $73 \text{ cm}$  \_\_\_\_\_  $0.7 \text{ m}$

(d)  $4.75 \text{ tonnes}$  \_\_\_\_\_  $47500 \text{ kg}$

:Answer

Q-5

i) Convert each of these measures to the units shown in brackets. [ 2 ]

(a)  $7.142 \text{ kg}$  (g)

(b)  $12568 \text{ m}$  (km)

Answer: (a) \_\_\_\_\_ g, (b) \_\_\_\_\_ km

ii) Without using the calculator, evaluate the following square root. [ 2 ]

$\sqrt{625}$

Answer: \_\_\_\_\_

- iii) In a survey of 500 cars, 245 were White, 25 were Blue and 13 were Red. [ 2 ]  
The rest were Silver. Express number of Silver cars as a Percentage of the Total.

Answer: \_\_\_\_\_ %

- iv) A bus journey from a Town to a City takes 2 hour 38 minutes. [ 2 ]  
Complete the timetable beside.

Depart	Arrive
05 00	07 38
07 20	(a)
08 40	11 18
(b)	13 36

Answer: (a) \_\_\_\_\_ , (b) \_\_\_\_\_

- v) For each sequence below write down the next two terms. [ 2 ]

(a) 31 24 17 10 .....

(b) 24 12 6 3 .....

Answer: (a) \_\_\_\_\_ , (b) \_\_\_\_\_

THE END

MODEL TEST PAPER NEW ENTRY CADET COLLEGE PETARO