

S. D. PUBLIC SCHOOL, PITAMPURA, DELHI

HOLIDAYS' HOMEWORK 2026-27

SUBJECT – MATHEMATICS

CLASS - VII

PROJECT

Do the given activity in a scrap file.

“Comparing Population & Climate of Two Regions”

Task:

Students will:

1. Collect data of:
 - Population (approx.)
 - Average rainfall / temperature
2. Represent:
 - **Bar Graph** → Population comparison
 - **Pie Chart** → Rainfall distribution (or seasonal data)

Example Data

Region Population (in lakhs)

Delhi 200

Sikkim 7

- Use colors/themes (blue for islands, grey/red for Delhi)
- Add symbols (waves 🌊, buildings 🏠)

TASK 2: Tickle your brain, surf the net and do the following creatively:

- a) Make a **Celtic Knotwork**. (to be done on A-4 or A-3 size sheet).
Make it colourful and attractive. (Roll nos 1-25)

You can refer the given link. All the steps are given.

https://www.artfulmaths.com/uploads/5/2/0/5/52054835/celtic_knotwork.pptx

- b) Design a robot using waste material (3 D solids). (Roll No. 25 onwards)

ASSIGNMENT

Instructions

1. Attempt all questions neatly in a separate math holiday homework notebook.
2. Label units clearly and use a ruler for number lines and tables.

Unit 1: Large Numbers Around Us

Q1. Write the number names (Indian System):

- a) 45,67,890
- b) 9,08,76,123

Q2. Write in figures:

- a) Fifty-three lakh twenty thousand ten
- b) Nine crore seven lakh five hundred

Q3. Place Value:

Find the place value of the underlined digit:

- a) 7,65,43,210
- b) 3,08,76,509

Q4. Convert:

- a) Indian to International: 5,67,89,000
- b) International to Indian: 12,345,678

Q5. Arrange in ascending order:

45,67,890 ; 4,56,78,900 ; 56,78,900 ; 5,67,890

HOTS (Thinking Questions)

1. Which is greater:
7,89,00,000 or 78,90,000? Explain.
2. Why do we use commas in large numbers?
3. A number has 8 different digits. What is the smallest and largest possible number?

Unit 2: Arithmetic Expressions

A. Fill in the blanks

1. An arithmetic expression is a combination of numbers and _____.
2. The value of an expression is found by _____ it.
3. To compare two expressions, we use the symbols _____, _____,
and _____.
4. In $5 + 6 \times 3$, the terms are _____ and _____.
5. In BODMAS, B stands for _____.

B. Write expressions for the following

1. Add 18 and 25

2. Subtract 17 from 50
3. Multiply 9 by 7
4. Divide 72 by 8
5. Add 15 to 60 and then subtract 20

C. Find the value of each expression

1. $24 + 16$
2. $90 - 35$
3. 8×12
4. $81 \div 9$
5. $7 + 4 \times 5$
6. $36 \div 6 + 9$
7. $18 - 6 \div 2$

D. Compare the expressions using $>$, $<$ or $=$

1. $16 + 12$ ____ 7×4
2. $81 \div 9$ ____ $7 + 2$
3. $45 - 15$ ____ 3×10
4. $54 \div 6$ ____ $9 - 1$
5. $36 + 14$ ____ $80 - 30$

E. Real-life based questions

1. A pencil costs ₹12. Find the cost of 6 pencils using an expression.
2. A train covers 60 km in 1 hour. Write an expression to find the distance covered in 7 hours.

F. Solve using BODMAS rule

1. $24 \div 6 + 5$
2. $12 + 3 \times 4$
3. $18 - 2 \times 3$
4. $15 + 8 \div 4$
5. $(9 + 5) \times 2$
6. $32 - (4 \times 3)$
7. $(10 + 2) \times (2 + 1)$

G. Brackets in expressions (Solve correctly)

1. $(8 + 6) \times 3$
2. $20 - (5 + 7)$
3. $(16 \div 4) + (2 \times 3)$

4. $(9 + 3) \times (2 + 1)$

5. $30 - (12 \div 3)$

H. Identify terms

Write the terms in each expression:

1. $14 - 5 + 8$

2. $6 + 3 \times 4$

3. $12 + 7 - 3$

4. $25 - 2 \times 6 + 9$

I. Remove brackets and simplify

1. $75 - (20 + 15)$

2. $130 - (50 - 30)$

3. $25 - (-5 + 10)$

4. $300 - (-20 - 30)$

J. Distributive property (Expand)

1. $3 \times (6 + 4)$

2. $5 \times (10 - 2)$

3. $7 \times (8 + 1)$

4. $4 \times (12 + 6)$

Chapter 8: Working with Fractions

1. **MCQ:** The reciprocal of $\frac{5}{9}$ is:

- (a) $\frac{5}{9}$
- (b) $\frac{9}{5}$
- (c) $\frac{14}{9}$
- (d) $\frac{9}{14}$

2. Find: $\frac{4}{7} \times \frac{21}{8}$. Write your answer in the simplest form.

3. **MCQ:** Without calculating fully, choose the correct statement: $\frac{5}{8} \times \frac{3}{4}$ is

- (a) greater than $\frac{5}{8}$
- (b) less than $\frac{5}{8}$
- (c) equal to $\frac{5}{8}$
- (d) cannot be decided

4. **True/False:** If you multiply a positive number by a fraction greater than 1, the product becomes larger than the original number.

5. Simplify using cancellation: $\frac{24}{35} \times \frac{7}{16}$

6. Compute: $3\frac{1}{2} \div \frac{7}{8}$

7. **MCQ:** For which divisor will the quotient be **greater** than the dividend? $8 \div$ _____

- (a) 4
- (b) 2
- (c) $\frac{1}{3}$
- (d) $\frac{5}{4}$

8. **Fill in the blank:** $\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \times$ _____

9. Evaluate: $1 \div \frac{3}{5}$

10. Convert to a mixed fraction: $\frac{47}{6}$

11. Find: $\frac{3}{5}$ of $\frac{5}{6}$ litre. Write the answer in simplest form.

12. Compute: $\frac{4}{9} \div \frac{2}{3}$

13. Without multiplying completely, decide and write a one-line reason: Is $\frac{7}{10} \times \frac{9}{8}$ less than or greater than $\frac{7}{10}$?

14. Solve: $\left(\frac{2}{5} \times \frac{15}{8}\right) \div \frac{3}{4}$

15. Find x such that: $x \div \frac{2}{5} = \frac{3}{4}$

16. A painter uses $\frac{2}{3}$ litre of paint to colour 8 chairs. How much paint is needed to colour 12 chairs?

17. A train journey takes $4\frac{1}{2}$ hours. A flight covers the same distance in $\frac{3}{4}$ hour. How many hours does the flight save compared to the train?

18. A storybook has 240 pages. Priya read $\frac{1}{4}$ of the book on Monday and $\frac{2}{5}$ of the book on Tuesday. How many pages are still left to finish the book?

Case Study 1: The Juice Distribution

A school canteen prepares 6 litres of orange juice for a picnic. The juice is to be distributed equally among students in cups, with each cup holding $\frac{3}{4}$ litre.

Answer the following:

- (a) How many full cups of juice can be served?
- (b) How much juice (in litres) will be left after serving the full cups?
- (c) If the remaining juice is shared equally among 2 teachers, how much does each teacher get?
- (d) **True/False (with reason):** If the cup size were smaller than $\frac{3}{4}$ litre, fewer cups would be needed.

Case Study 2: The Walking Challenge

Ravi walks $\frac{5}{6}$ km in 1 hour. His friend Amit walks $\frac{3}{4}$ km in 1 hour.

Answer the following:

- (a) How far does Ravi walk in $2\frac{2}{5}$ hours?
- (b) How far does Amit walk in $1\frac{1}{3}$ hours?

- (c) Who covers more distance in 2 hours, and by how much?
- (d) If they both start from the same point and walk in opposite directions for 1 hour, what is the total distance between them?