



ÉCOLE GLOBALE

INTERNATIONAL GIRLS' SCHOOL

Dehradun

HOLIDAY HOMEWORK - CLASS VII

MATH

1. The following shows the temperature in degree Celsius in Srinagar in various months.

Months	November	December	January	February	March
Temp ° C	1	-1	-2	0	3

- Represent the following temperatures on a number line.
 - Name the hottest and the coldest month from the above data.
 - What is the temperature difference between the hottest and the coldest months in Srinagar?
 - What is the temperature difference between the months November and February?
2. Verify $-a - (-b) = b - a$ for the following **a** and **b** values:
- $a = 2, b = -8$
 - $a = -10, b = -5$
3. In a competitive exam of 40 questions, +2 is awarded for a correct answer and -1 for every wrong answer. Find the total score if the child had 12 wrong answers in her attempt of all questions.
4. Verify $a \times (b + c) = a \times b + a \times c$ for the following **a**, **b** and **c** values:
- $a = -1, b = -2, c = -3$
 - $a = -20, b = 15, c = -25$
5. Evaluate $[-1 - (-2) + (2 \times 5) - 2]$
6. The product of two numbers is 135. If one of the numbers is -45, find the other number.
7. By taking any two integers, verify that the multiplication is commutative whereas division is not.

Fractions and Decimals

- Fill in the blanks with appropriate symbols '<', '>', '=':
 - 1.2×3.4 _____ 0.12×34
 - $1 \div 1.1$ _____ $1.1 \div 1$
- Find the half of five and three-fourths.
- Draw a square and divide it in eight equal parts. Shade one-fourth of the square.
- Find:
 - $\frac{1}{3}$ of reciprocal of $\frac{2}{3}$
 - $1\frac{1}{2} \div 2$
 - If $11 \times 13 = 143$, find 1.1×1.3 .
- The cost of $4\frac{1}{2}$ kg of wheat flour is Rs 135. Find the cost of $2\frac{3}{4}$ kg of wheat.

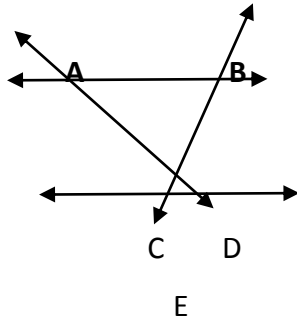
Data Handling

- Find the range for the data: 13, 12, 11, 6, 16, 19, 30, 28, 17.
- Organize the following prices of the DVDs, (in Rs) in a tabular form.
80, 70, 70, 100, 80, 70, 80, 100, 90, 70, 70, 80, 90.
 - What is the maximum price of a DVD?
 - What is the minimum price of DVD?
 - What is the range of the data?
 - Find the mean price of the DVD's.
- Find the mean of first 5 prime numbers.
- The number of teachers in 10 schools in a town are : 25, 36, 34, 28, 45, 46, 47, 36, 29, 44. Find the mean of number of teachers in the town.
- Mahesh played three basket ball games. In the first game, he scored 9 points. In the second game he scored 13 points. In the third game he scored 8 points. What are his average points per game?
- The sizes (in cm) of the shirts sold by a shopkeeper in a month are:
90, 100, 95, 90, 105, 100, 95, 105, 95, 90, 110, 95, 100, 105, 90, 95, 95, 100, 95, 100, 95, 110, 100, 90, 95, 100, 105, 90, 90, 100, 95, 90, 110.
Tabulate the above data, find the mode and mean of the shirt size.
- Find the mean, median and mode of the data: 11, 16, 11, 14, 14, 10, 12, 11, 13.

Line and Angles

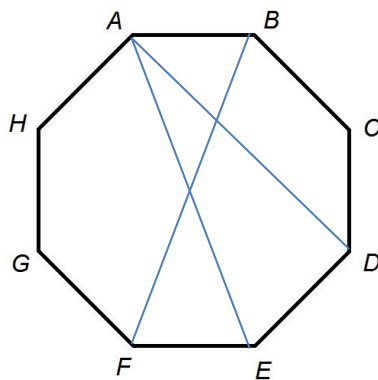
- Fill in the blanks:
 - If two angles are complementary, the sum of their measure is _____.
 - Two adjacent angles those are supplementary for a _____.
- Define parallel lines. Draw a pair of parallel lines and mark its co-interior angles.
- Draw a square ABCD. Join the diagonals BD. Find the complement of the $\angle ABD$.
- In parallelogram PQRS, angle P = 80° . Find the other 3 angles.

5.



If $AB \parallel CD$, angle $CEB = 70^\circ$, find the angles BAC, ABD, ACD and BDC .

- Name a pair of :
 - Adjacent angles
 - Linear pair angles
 - Vertically opposite angles



Exponents and powers

- Write the base and the exponent of 10^3 .
- Fill in the blanks:
 - _____ is the number whose exponents is 4 and the base is -5.
 - $10^2 \div 10^3 =$ _____.

c. $(xy)^0 =$ _____.

d. $2^5 x^3$ can be written as the product of _____.

3. Simplify:

a. $\frac{4^3}{4^5 \div 4^2}$

b. $\frac{12^3 \times 9^3 \times 2^2}{6^2 \times 8^2 \times 18}$

Practical Geometry

1. Draw a line, say AB, take a point C outside it. Through C, draw a line parallel to AB using ruler and compasses only.
2. Draw a line l. Draw a perpendicular to l at any point on l. On this perpendicular choose a point X, 4 cm away from l. Through X, draw a line m parallel to l.
3. Let l be a line and P be a point not on l. Through P, draw a line m parallel to l. Now join P to any point Q on l. Choose any other point R on m. Through R, draw a line parallel to PQ. Let this meet l at S. What shape do the two sets of parallel lines enclose?
4. Construct $\triangle XYZ$ in which $XY = 4.5$ cm, $YZ = 5$ cm and $ZX = 6$ cm.
5. Construct an equilateral triangle of side 5.5 cm.
6. Draw $\triangle PQR$ with $PQ = 4$ cm, $QR = 3.5$ cm and $PR = 4$ cm. What type of triangle is this?
7. Construct $\triangle ABC$ such that $AB = 2.5$ cm, $BC = 6$ cm and $AC = 6.5$ cm. Measure $\angle B$.
8. Construct $\triangle DEF$ such that $DE = 5$ cm, $DF = 3$ cm and $m \angle EDF = 90^\circ$.
9. Construct an isosceles triangle in which the lengths of each of its equal sides is 6.5 cm and the angle between them is 110° .
10. Construct $\triangle ABC$ with $BC = 7.5$ cm, $AC = 5$ cm and $m \angle C = 60^\circ$.