

- How many whole numbers have their squares equal to themselves?
- Is division of two whole numbers always defined? Is it commutative?
- Name a four-digit number whose predecessor is a three-digit number.

LET'S EVALUATE

- Write the three whole numbers occurring just after 9,998.
- Write the three whole numbers occurring just before 20,001.
- Write the predecessor of 1,02,999.
- Write the successor of 76,85,949.
- Find the sum of 2 and 7 using a number line.
- Find the product of 3 and 6 using a number line.
- Simplify $256 \times 55 + 45 \times 256$ using properties of whole numbers.
- Find the value of $1,738 \times 125 - 1,738 \times 25$.
- Simplify $(256 \div 16) \div 4$.
- Find the least 5-digit number exactly divisible by 33.
- By studying the pattern given below, evaluate the following:

$$1 + 2 = \frac{2 \times 3}{2}$$

$$1 + 2 + 3 = \frac{3 \times 4}{2}$$

$$1 + 2 + 3 + 4 = \frac{4 \times 5}{2}$$

(a) $1 + 2 + 3 + \dots + 100$

(b) $2 + 4 + 6 + \dots + 100$

(c) $30 + 31 + 32 + \dots + 50$

THINKING SKILLS

- Does an identity element exist in addition of whole numbers? What is it? In which other fundamental operation does an identity element exist? What is it?
- Is the difference of two whole numbers commutative? What can you say about the absolute values of the difference?
- If d divides n completely, can we say $\frac{n}{d}$ will also divide n completely?
- Which is greater, the sum of first hundred whole numbers or the product of first hundred whole numbers?
- If 4 is removed from the set of whole numbers, is the set closed with respect to addition?
- If 7 is removed from the set of whole numbers, is the set closed with respect to multiplication?
- Describe a real life situation that could be represented by the expression $8 \times 4 + 6$.

VALUES AND LIFE SKILLS

- A bus moves at a constant speed of 96 km per hour. How much distance will it cover in 14 h? Is it safe to drive above the speed limit?
- In a canteen, a dosa costs ₹ 10 and a cup of tea costs ₹ 3. Reena had a dosa and a cup of tea everyday for 11 days. How much money did she spend in the canteen? Is it good for your health to eat canteen's food regularly?

- In Roman numerals, X can be subtracted from _____ and _____ only.
- The estimate of the number 764 when rounded off to nearest hundreds is _____.
- A number greater than or equal to 500 and less than 1500 on rounding off to nearest thousands gives _____.

Answer in One Word or a Line

- Which digit in the number 1,234 has the highest face value?
- Which digit in the number 1,234 has the highest place value?
- How many kilograms are there in 1 quintal?
- Which symbol is used to represent 10,000 in the Roman numeral?
- What number is obtained on rounding off 6,292 to the nearest hundreds?

LET'S EVALUATE

- Write the numerals for each of the following:
 - Sixteen crore forty lakh ten thousand two hundred forty-nine
 - Seven crore two lakh eighty-seven
- Write number names for (a) 7,23,56,708 (b) 27,57,002
- Write each in expanded form: (a) 5,35,23,981 (b) 34,49,28,876
- Find the difference between the place values of two 7s in 78,65,49,756.
- How many five-digit numbers are there in all?
- Arrange the following numbers in ascending as well as descending order:
4,75,63,892; 56,45,389; 3,27,896; 5,64,585 and 45,87,692.
- The construction cost of 18 duplex houses constructed by a builder is ₹ 4,56,24,564. What is the cost of one such duplex house?
- A student multiplied 7,236 by 75 instead of multiplying by 57. By how much was his answer greater than the correct answer?
- A vessel has 5 L, 500 mL of ice cream. How many ice cream cups, each of 50 mL capacity, can be filled?
- Express each of the following as a Hindu-Arabic numeral:

| | | | |
|-----------|------------|-------------|----------|
| (a) XXXII | (b) XCV | (c) DCCLXIV | (d) CCXX |
| (e) MVI | (f) LXXXIV | | |
- Estimate and compare with the actual sum: (a) $760 + 683$ (b) $9,864 + 2,349$
- Estimate the product of 367×540 by rounding off each number to its nearest hundreds.
- Find the estimated quotient for $473 \div 19$.
- Express the following numbers as Roman numerals:

| | | | |
|---------|---------|--------|---------|
| (a) 446 | (b) 341 | (c) 66 | (d) 227 |
| (e) 49 | (f) 999 | | |