	Prime Factors
A. Choose the Correct Ans	swer:
1. Which of the following	g is a prime factor of 36?
a) 6	b) 4
c) 3	d) 9
2. The prime factorisatio	n of 30 is:
a) 2 × 15	b) 3 × 10
c) 2 × 3 × 5	d) 1 × 2 × 3 × 5
3. Which number has on	ly one prime factor?
a) 9	b) 25
c) 49	d) 7
4. Which of the following	g numbers is not a prime factor of 84?
a) 2	b) 3
c) 5	d) 7
5. What is the smallest p	rime number used in prime factorisation?
a) 1	b) 2
C) 3	u) 5
B. Write the Missing Term	ns to Complete the Sentences:
1. The prime factorisation	n of 100 is
2. A prime factor is alway	vs a number.
3. Prime factorisation is	s a way of expressing a number as a product c
4 is the only	/ even prime number.
5. 2 × 2 × 3 × 5 is the prim	ne factorisation of
C. Figure out the answers	to these questions:
1. Write the prime factor	s of 72 using the factor tree method.
2. Use division method to	o find the prime factorisation of 150.
3. Find the common prim	e factors of 60 and 90.
4. Which of the following 60, 45, 105?	g numbers have exactly three distinct prime factors: 30
	and an and the minute factors of 111

- 6. Create a number using only prime factors 2 and 3. Give two such examples.
- 7. Write the first four multiples of 2 and check whether they are prime or not.
- 8. Arrange the following numbers in increasing order of their total number of prime factors: 18, 24, 32, 50.

D. Mark each sentence with a True (\checkmark) or False (X):

- 1. Every number has at least one prime factor.
- 2. The number 1 is considered a prime factor.
- 3. All even numbers have 2 as one of their prime factors.
- 4. A number can have repeated prime factors.
- 5. Prime factorisation of a number is always unique (except for the order of factors).

E. Challenge yourself with these questions:

- 1. Make a factor tree for the number 96 in two different ways.
- 2. If a number has only 2 and 5 as prime factors, can it end with digit 6? Explain briefly.
- 3. Write the prime factorisation of a three-digit number of your choice.
- 4. Use a Venn diagram to show the common and uncommon prime factors of 60 and 75.
- 5. What is the highest power of 2 in the prime factorisation of 128?