

EduSahara™ Learning Center Assignment**Grade : Class VI, CBSE****Chapter : Playing with Numbers****Name : Prime Factorization****Licensed To : Teachers and Students for non-commercial use**

1. Find the prime factorization of 48

(i) $2^3 \times 3$ (ii) $2^4 \times 5$ (iii) $2^4 \times 3^2$

(iv) $2^4 \times 3^{-2}$ (v) $2^4 \times 3$

2. Find the prime factorization of 74

(i) 2×37 (ii) -1×37 (iii) 2×40

(iv) $2^2 \times 37$ (v) 2×36

3. Find the prime factorization of 1120

(i) $2^5 \times 5 \times 6$ (ii) $2^5 \times 5 \times 7^2$ (iii) $2^5 \times 5 \times 7$

(iv) $5^5 \times 5 \times 7$ (v) $2^5 \times 2 \times 7$

4. Find the prime factorization of 15444

(i) $2^2 \times 5^3 \times 11 \times 13$ (ii) $2^2 \times 3 \times 11 \times 13$ (iii) $2^2 \times 3^3 \times 11^2 \times 13$

(iv) $2^2 \times 3^3 \times 11 \times 12$ (v) $2^2 \times 3^3 \times 11 \times 13$

5. Find the number of prime factors of 27

(i) (-2) (ii) 1 (iii) 3 (iv) 0 (v) 2

6. Find the number of prime factors of 50

(i) 1 (ii) 3 (iii) 0 (iv) 2 (v) 4

7. Find the number of prime factors of 644

(i) 2 (ii) 1 (iii) 3 (iv) 5 (v) 4

8. Find the number of prime factors of 20384

(i) 2 (ii) 5 (iii) 1 (iv) 3 (v) 4

9. Find the total number of factors of 10

(i) 3 (ii) 5 (iii) 1 (iv) 4 (v) 7

10. Find the total number of factors of 81

(i) 3 (ii) 6 (iii) 5 (iv) 8 (v) 4

11. Find the total number of factors of 525

(i) 15 (ii) 12 (iii) 13 (iv) 11 (v) 9

12. Find the total number of factors of 900

(i) 27 (ii) 25 (iii) 28 (iv) 30 (v) 26

13. Find the prime factorization of 34

(i) 2×17 (ii) $2^2 \times 17$ (iii) 4×17

(iv) 2×16 (v) 2×14

14. Find the prime factorization of 85

(i) 4×17 (ii) 3×17 (iii) 5×17^2

(iv) 5×17 (v) 5×19

15. Find the prime factorization of 320

(i) $2^6 \times 2$ (ii) $2^7 \times 5$ (iii) $2^6 \times 4$

(iv) $2^6 \times 5$ (v) $2^6 \times 8$

16. Find the prime factorization of 3024

(i) $4^4 \times 3^3 \times 7$ (ii) $2^4 \times 3^4 \times 7$ (iii) $2^4 \times 3^3 \times 7$

(iv) $2^4 \times 3^3 \times 5$ (v) $2^4 \times 3^3 \times 6$

17. Find the number of prime factors of 10

(i) (-1) (ii) 5 (iii) 1 (iv) 2 (v) 3

18. Find the number of prime factors of 62

(i) 2 (ii) 5 (iii) 3 (iv) 1 (v) 0

19. Find the number of prime factors of 2208

(i) 4 (ii) 3 (iii) 2 (iv) 0 (v) 5

20. Find the number of prime factors of 8712

(i) 1 (ii) 3 (iii) 2 (iv) 4 (v) 6

21. Find the total number of factors of 16

(i) 5 (ii) 4 (iii) 3 (iv) 6 (v) 8

22. Find the total number of factors of 62

(i) 3 (ii) 4 (iii) 5 (iv) 7 (v) 1

23. Find the total number of factors of 180

(i) 17 (ii) 18 (iii) 15 (iv) 21 (v) 19

24. Find the total number of factors of 2592

(i) 33 (ii) 29 (iii) 30 (iv) 27 (v) 31

Assignment Key

- 1) (v)
- 2) (i)
- 3) (iii)
- 4) (v)
- 5) (ii)
- 6) (iv)
- 7) (iii)
- 8) (iv)
- 9) (iv)
- 10) (iii)
- 11) (ii)
- 12) (i)
- 13) (i)
- 14) (iv)
- 15) (iv)
- 16) (iii)
- 17) (iv)
- 18) (i)
- 19) (ii)
- 20) (ii)
- 21) (i)
- 22) (ii)
- 23) (ii)
- 24) (iii)