



1. Find the prime factorization of 360

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

2. Find the prime factorization of 3456

- (i)  $2^6 \times 3^3$  (ii)  $2^7 \times 3^3$  (iii)  $2^7 \times 3$  (iv)  $2^7 \times 6^3$  (v)  $2^8 \times 3^3$

3. Find the prime factorization of 168

- (i)  $2^3 \times 3 \times 9$  (ii)  $2^3 \times 1 \times 7$  (iii)  $2^4 \times 3 \times 7$  (iv)  $2^3 \times 3 \times 7$  (v)  $2^2 \times 3 \times 7$

4. Find the prime factorization of 24696

- (i)  $2^3 \times 5^2 \times 7^3$  (ii)  $2^3 \times 3 \times 7^3$  (iii)  $2^4 \times 3^2 \times 7^3$  (iv)  $2^3 \times 3^2 \times 7^3$  (v)  $(-1)^3 \times 3^2 \times 7^3$

5. Find the prime factorization of 1008

- (i)  $2^4 \times 3^2 \times 7$  (ii)  $2^4 \times 3^2 \times 6$  (iii)  $2^4 \times 3^3 \times 7$  (iv)  $2^4 \times 3^{-1} \times 7$  (v)  $4^4 \times 3^2 \times 7$

6. Find the prime factorization of 22050

- (i)  $2 \times 3^2 \times 5^2 \times 7^2$  (ii)  $2 \times 3^2 \times 5^2 \times 7^2$  (iii)  $2 \times 3^3 \times 5^2 \times 7^2$  (iv)  $2 \times 5^2 \times 5^2 \times 7^2$  (v)  $2 \times 3^2 \times 5 \times 7^2$

7. Find the prime factorization of 2520

- (i)  $4^3 \times 3^2 \times 5 \times 7$  (ii)  $2^4 \times 3^2 \times 5 \times 7$  (iii)  $2^3 \times 0 \times 5 \times 7$  (iv)  $2^3 \times 3^2 \times 4 \times 7$  (v)  $2^3 \times 3^2 \times 5 \times 7$

8. Find the prime factorization of 32256

- (i)  $2^9 \times 3^3 \times 7$  (ii)  $2^9 \times 3^2 \times 4$  (iii)  $2^9 \times 3^2 \times 7$  (iv)  $2^9 \times 3 \times 7$  (v)  $2^9 \times 6^2 \times 7$

9. Find the prime factorization of 1125

- (i)  $3 \times 5^3$  (ii)  $3^2 \times 5^3$  (iii)  $3^2 \times 8^3$  (iv)  $3^2 \times 2^3$  (v)  $3^3 \times 5^3$

10. Find the prime factorization of 20736

- (i)  $2^6 \times 3^4$  (ii)  $2^7 \times 3^4$  (iii)  $2^8 \times 6^4$  (iv)  $2^8 \times 3^4$  (v)  $2^9 \times 3^4$

## Assignment Key

1) (iv)

2) (ii)

3) (iv)

4) (iv)

5) (i)

6) (ii)

7) (v)

8) (iii)

9) (ii)

10) (iv)

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