



NCERT SOLUTIONS FOR CLASS 6 MATHS PLAYING WITH  
NUMBERS EXERCISE 3.6

**Q1.** Find the H.C.F. of the following numbers:

(a) 18, 48, (b) 30, 42, (c) 18, 60, (d) 27, 63, (e) 36, 84, (f) 34, 102, (g) 70, 105, 175, (h) 91, 112, 49, (i) 18, 54, 81, (j) 12, 45, 75

**Ans:**

(a) Factors of 18 =  $2 \times 3 \times 3$

Factors of 48 =  $2 \times 2 \times 2 \times 2 \times 3$

H.C.F. (18, 48) =  $2 \times 3 = 6$

(b) Factors of 30 =  $2 \times 3 \times 5$

Factors of 42 =  $2 \times 3 \times 7$

H.C.F. (30, 42) =  $2 \times 3 = 6$

(c) Factors of 18 =  $2 \times 3 \times 3$

Factors of 60 =  $2 \times 2 \times 3 \times 5$

H.C.F. (18, 60) =  $2 \times 3 = 6$

(d) Factors of 27 =  $3 \times 3 \times 3$

Factors of 63 =  $3 \times 3 \times 7$

H.C.F. (27, 63) =  $3 \times 3 = 9$

(e) Factors of 36 =  $2 \times 2 \times 3 \times 3$

Factors of 84 =  $2 \times 2 \times 3 \times 7$

H.C.F. (36, 84) =  $2 \times 2 \times 3 = 12$

(f) Factors of 34 =  $2 \times 17$

Factors of 102 =  $2 \times 3 \times 17$

H.C.F. (34, 102) =  $2 \times 17 = 34$

(g) Factors of 70 =  $2 \times 5 \times 7$

Factors of 105 =  $3 \times 5 \times 7$

Factors of 175 =  $5 \times 5 \times 7$

H.C.F. =  $5 \times 7 = 35$

(h) Factors of 91 =  $7 \times 13$

Factors of 112 =  $2 \times 2 \times 2 \times 2 \times 7$

Factors of 49 =  $7 \times 7$

H.C.F. =  $1 \times 7 = 7$

(i) Factors of 18 =  $2 \times 3 \times 3$

Factors of 54 =  $2 \times 3 \times 3 \times 3$

Factors of 81 =  $3 \times 3 \times 3 \times 3$

H.C.F. =  $3 \times 3 = 9$

(j) Factors of 12 =  $2 \times 2 \times 3$

Factors of 45 =  $3 \times 3 \times 5$

Factors of 75 =  $3 \times 5 \times 5$

H.C.F. =  $1 \times 3 = 3$

**Q2.** What is the H.C.F. of two consecutive:

(a) numbers?

(b) even numbers?

(c) odd numbers?

**Ans:**

(a) H.C.F. of two consecutive numbers be 1.

(b) H.C.F. of two consecutive even numbers be 2.

(c) H.C.F. of two consecutive odd numbers be 1.

**Q3.** H.C.F. of co-prime numbers 4 and 15 was found as follows by factorization:

$4 = 2 \times 2$  and  $15 = 3 \times 5$  since there is no common prime factor, so H.C.F. of 4 and 15 is 0. Is the answer correct? If not, what is the correct H.C.F.?

**Ans:** No. The correct H.C.F. is 1.

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