Marks Plus
DATE
PAGE

: Exercise : 4c :-

1): First find the common factors of these numbers. Then mark their H.C.F.

a) 9, 15 :→

9 → ① ③.

15 → ① ③, 5, 15

→ 1 × 3 = com. factor.

3. ← H.C.f Ans.

b) 8, 16 :→ 8 :→ ① ② ④ ⑧

16 :- ① ② ④ ⑧ 16

C. F. → 1, 2, 4, 8

H.C.F → 8 Ans.

c) 4, 18 :→ 4 → ① ② 4

18 → ① ② 3, 6, 9, 18

C.F :- 1, 2.

H.C.F :- 2. Ans.

d) 28, 32 :- 28 → ① ② ④ 7, 14, 28.

32 → ① ② ④ ⑧ 16, 32

C.f = 1, 2, 4

H.C.f = 4

e) 40, 24 :→ 40 :→ ① ② ④ 5, ⑧ 10, 20, 40

24 :- ① ② 3, ④, 6 ⑧, 12, 24

C.F :- 1, 2, 4, 8

H.C.F = 8 Ans.

Ques: Complete the H.C.F chart. some are done for you. [H.W.] [project - 5M]

Ques 3. These numbers have already factorised for you. find the H.C.F of the given pairs.

a) 20, 40 →

20 → ② × ② × ⑤

40 → ② × ② × 2 × ⑤

2 × 2 × 5

= 20

b) 20, 36 →

20 → ② × ② × 5

36 → ② × ② × 3 × 3

2 × 2 = 4

c) 27, 40 →

27 → 3 × 3 × 3

40 → 2 × 2 × 2 × 5

= 1

[Note:- There are no common factors for all two numbers, so the H.C.F is 1]

d) 14, 36 →

14 = ② × 7

36 = ② × 2 × 3 × 3

= 2

e) 14, 16 →

14 → ② × 7

16 → ② × 2 × 2 × 2

= 2

f) 16, 36 →

16 → ② × ② × 2 × 2

36 → ② × ② × 3 × 3

= 2 × 2 = 4

Ques:- Find the HCF of these using the prime factorisation method.

a) 6, 10 →

6 → 1, 2, 3, 6

10 → 1, 2, 5, 10

1 × 2 = 2

b) 16, 8 →

16 → 1, 2, 4, 8, 16

8 → 1, 2, 4, 8

→ 1, 2, 4, 8

H.C.F = 8

c) 15, 25 →

15 → 1, 3, 5, 15

25 → 1, 5, 25

1, 5

H.C.F = 5

d) 16, 48 →

16 → 1, 2, 4, 8, 16

48 → 1, 2, 3, 4, 6, 8, 12, 16, 24, 48

∴ H.C.F :→ 16

[e. f. g. h. H.W.]