Exercise 10 (D)

1. Find the HCF of the following.

2) 8 and 16

Factors of 8 = (1),(2), (4), (8)

Factors of 16 = (1), 2, 4, (8) 16

Here, 8 is ~~that~~ the last highest common factor among the circled numbers.

So, the HCF of 8 and 16 is 8.

b) 12 and 24

Factors of 12 = ①, ②, ③, ④, ⑥ ⑫

Factors of 24 = ①, ②, ③, ④, ⑥, 8, ⑫, 24

Here, 12, is the last highest common factor among the circled numbers.

So, the HCF of 12 and 24 is 12.

c) 24 and 36

Factors of 24 = ①, ②, ③, ④, ⑥ 8, ⑫, 24

Factors of 36 = ①, ②, ③, ④, ⑥, 9, ⑫, 18, 36

Here, 12, is the last highest common factor among the circled numbers.

So, the HCF of 24 and 36 is 12.

d) 5 and 15

Factors of 5 = ①, ⑤

Factors of 10 = ①, 2, ⑤, 10

Here 5, is the last ~~long~~ highest common factor among the circled numbers.

So, the HCF of 5 and 10 is 5.

e) 15 and 30

Factors of 15 = ①, ③, ⑤, ⑮

Factors of 30 = ①, 2, ③, ⑤, 6, 10, ⑮, 30

Here 15 is the last highest common factor ~~is the~~ among the circled numbers.

So, the HCF of 15 and 30 is 15.

f) 4 and 6

Factors of 4 = $\underline{1}$, 2, 4

Factors of 6 = 1, 2, 3, 6

Here, 2 is the last highest common factor among the following numbers.

So, the HCF of 4 and 6 is 2.

g) 54 and 72

Factors of 54 = ①, ②, ③ ⑥ ⑨, ⑱, 27, 54

Factors of 72 = ①, ②, ③ 4, ⑥, 8, ⑨, 12, ⑱ 24 36, 72

Here, 18 is the last highest common factor among the circled numbers.

So, the HCF of 54 and 72 is 18.

h) 56 and 70

Factors of 56 = ①, ②, 4, ⑦, 8, ⑭, 28, 56.

Factors of 70 = ①, ②, 5, ⑦, 10, ⑭, 35, 70

Here, 14 is the last ~~largest~~ highest common factor among the circled numbers.

So, the HCF of 56 and 70 is 14.

i) 23 and 25

Factors of 23 = ①, 23

Factors of 25 = ①, 5, 25

Here, 1 is the last highest common factor among the circled numbers.

So, the HCF of 23 and 25 is 1.

j) 42 and 56

Factors of 42 = ①②, 3, 6, ⑦, ⑭, 21, 42

Factors of 42 = ①②, 4, ⑦, 8, ⑭, 28, 50

Here, 14 is the last largest common factor among the circled numbers.

So, the HCF of 42 and 56 is 14.