H.W
21.6.21

8.B

1. i) 16 and 35 =

16 = 1, 2, 4, 8, 16
35 = 1, 5, 7, 35

HCF = 1

ii) 25, 20
25 = 1, 5, 25
20 = 1, 2, 4, 5, 10, 20

HCF = 5

iii) 25, 75 =
25 = 1, 5, 25
75 = 1, 3, 5, 15, 25, 75

HCF = 25

iv) 8, 12 and 18
8 = 1, 2, 4, 8
12 = 1, 2, 3, 4, 6, 12
18 = 1, 2, 3, 6, 9, 18

HCF = 2

v) 24, 36, 45 and 60
24 = 1, 2, 3, 4, 6, 8, 12, 24
36 = 1, 2, 3, 4, 6, 9, 12,
45 = 1, 3, 5, 9, 15, 45
60 = 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

HCF = 3

(2.) i) 5 and 8

$5 = 1 \times 5$
$8 = 1 \times 2 \times 2 \times 2$
HCF = 1

ii) 24 and 99

$24 = 2 \times 2 \times 3 \times 2$
$99 = 7 \times 7$
HCF = 1

iii) 40, 60 and 80

$40 = 2 \times 2 \times 5 \times 2$
$60 = 2 \times 3 \times 5 \times 2$
$80 = 2 \times 2 \times 5 \times 2 \times 2$

HCF = ~~$2 \times 2 = 4$~~ $2 \times 2 \times 5 = 20$

iv) 48, 84 and 88

$48 = 2 \times 2 \times 3 \times 2 \times 2$
$84 = 2 \times 3 \times 7 \times 2$
$88 = 2 \times 11 \times 2 \times 2$

HCF = $2 \times 2 = 4$

v.) 12, 16 and 28 =

12 = 2 x 3 x 2
16 = 2 x 2 x 2 x 2
28 = 2 x 7 x 2

HCF = 2 x 2 = 4

3.) i.) 16 and 24

```
16 | 24 | 1
  -16
   8 | 16 | 2
     -16
      0
```

```
8 | 16 | 2
  -16
   0
```

HCF = 8

ii.) 18 and 30

```
18 | 30 | 1
  -18
  12 | 18 | 1
     -12
      6 | 12 | 2
        -12
         0
```

```
6 | 18 | 3
  -18
   0
```

HCF = 6

iii) 7, 14 and 24

14	24	1
- 14		
10	14	1
- 10		
4	10	2
- 8		
2	4	2
- 4		
0		

2	7	3
- 6		
1		

HCF = 1

iv) 70, 80, 120 and 150

120	150	1
- 120		
30	120	4
- 120		
0		

30	120	4
- 120		
0		

30	80	2
- 60		
20	30	1
- 20		
10	20	2
- 20		
0		

10	70	7
- 70		
0		

HCF = 10

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v.) 32, 56 and 46

46) 56 (1
− 46
10) 46 (4
− 40
6) 10 (1
− 6
4) 6 (1
− 4
2) 4 (2
− 4
0

2) 32 (16
− 2↓
12
− 12
0

HCF = 2

4.

i) 45, 75 and 135

75) 135 (1
− 75
60) 75 (1
− 60
15) 60 (4
− 60
0

15) 45 (3
− 45
0

HCF = 15

ii) 48, 36 and 96

48 | 96 | 2
-96
0

36 | 48 | 1
-36
12 | 36 | 3
-36
0

12 | 96 | 8
-96
0

HCF = 12

iii) 66, 33 and 132

33 | 66 | 2
-66
0

33 | 132 | 4
-132
0

HCF = 33

iv) 24, 36, 60 and 132

60 | 132 | 2
-120
12 | 60 | 5
-60
0

12 | 60 | 5
-60
0

12 | 36 | 3
-36
0

12 | 24 | 2
-24
0

HCF = 12

v.) 30, 60, 90 and 105

90) 105 (1
− 90
15) 90 (6
− 90
0

15) 60 (4
− 60
0

15) 90 (6
− 90
0

15) 30 (2
− 30
0

HCF = 15

5.) The greatest number that divides each of 180, 225 and 315 is

225) 315 (1
− 225
90) 225 (2
− 180
45) 90 (2
− 90
0

45) 180 (4
− 180
0

45) 225 (5
− 225
0

So the greatest number (HCF) that divides each of 180, 225 and 315 is 45.

6. 45) 56 (1
− 45
11) 45 (4
− 44
1) 11 (1
− 11
0

Yes, 45 and 56 are co prime numbers.

7.)

15 = 1, 3, 5, 15
16 = 1, 2, 4, 8, 16
21 = 1, 3, 7, 21
28 = 1, 2, 4, 7, 14, 28

pairs are 15 and 16, 16 and 21
15 and 28

8.) 93 = 90
111 = 108
129 = 126

108	126	1
	− 108	
	18	108	6
		− 108
		0

18	90	5
	− 90	
	0	

HCF = 18