Ch-8
Revision Exercise

1) Find HCF:

i) 108, 288 and 420

```
      2
108 ) 288
      -216
       72
```

```
       1
72 ) 108
     -72
      36
```

```
      2
36 ) 72
     -72
      0
```

```
        11
36 ) 420
     -36
      60
     -36
      24
```

```
       1
24 ) 36
     -24
      12
```

```
      2
12 ) 24
     -24
      0
```

HCF = 12

ii) 36, 54, 138

```
       1
36 ) 54
     -36
      18
```

```
      2
18 ) 36
     -36
      0
```

```
        7
18 ) 138
     -126
      12
```

```
       1
12 ) 18
     -12
      6
```

```
      2
6 ) 12
    -12
     0
```

HCF = 6

2) Find LCM

i) 72, 80 and 252

2	72, 80, 252
2	36, 40, 126
3	18, 20, 63
2	6, 20, 21
3	3, 10, 21
2	1, 10, 7
	1, 5, 7

LCM = 2 × 2 × 3 × 2 × 3 × 2 × 5 × 7 = 5040

ii) 48, 66, 120

2	48, 66, 120
3	24, 33, 60
2	8, 11, 20
2	4, 11, 10
	2, 11, 5

LCM = 2 × 3 × 2 × 2 × 2 × 11 × 5 = 2640

3) State True or false & Give ~~an example~~

i) HCF of two prime number is 1. (T)

ii) HCF of two co-prime number is 1. (T)

iii) LCM of two prime number is equal to their product. (T)

iv) LCM of two co-prime number is equal to ~~the~~ their product. (T)

4) The product of two number = 12096

HCF = 36

LCM = Product of two number divided by HCF

$= 12096 \div 36$

$= 336$

$\therefore$ LCM = 336

5) Product of the HCF and the LCM of two no = 1152

one number = 48

Other number = Product of HCF and LCM of two number divided by one number

$= 1152 \div 48$

$= 92$

$\therefore$ Other number = 92

6i)

$$\begin{array}{r|l} 2 & 28, 42 \\ \hline 7 & 14, 21 \\ \hline & 2, 3 \end{array}$$

LCM = $2 \times 7 \times 2 \times 3 = 84$

$\therefore$ 84 is the smallest ~~num~~ number that is completely 28 and 42

ii) 28) 42 (1
−28
14) 28 (2
−28
0

HCF = 14

∴ 14 is the largest number that is completely divisible by 28, 42

7) 2 | 140, 168
2 | 70, 84
7 | 35, 42
5, 6

LCM = 2×2×7×5×6 = 840

HCF = Product of two numbers / LCM

140×168 = 28
840
= 140×168 / 840 = 28

∴ LCM of the given numbers = 840 and HCF of the give numbers = 28

8) 108) 450 (4
−432
18) 108 (6
−108
0

HCF = 18

LCM = Product of two numbers / HCF

6
108 × 450 = 2700
18

∴ HCF of the Given number = 18 and LCM of the given number = 2700