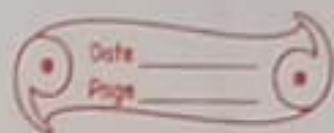


CW  
2/09

# Exercise - 10 (E)



a) 16 and 48

3		16	3		48
3		8	3		24
3		4	3		12
		2	3		6
					3

$$16 = 2 \times 2 \times 2 \times 2$$

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

$$= 48$$

b) 8, 12 and 16

3		8	3		12	3		16
3		4	3		6	3		8
		2			3	3		4
								2

$$8 = 2 \times 2 \times 2$$

$$12 = 2 \times 2 \times 3$$

$$16 = 2 \times 2 \times 2 \times 2$$

$$\text{LCM} = 2 \times 2 \times 2 \times 2 \times 3$$

$$= 48$$

c) 20 and 25

3	20	5	25
3	10		5
	5		

$$20 = 2 \times 2 \times 5$$

$$25 = 5 \times 5$$

$$\text{LCM} = 2 \times 2 \times 5 \times 5$$

$$= 100$$

d) 40 and 50

2	40	2	50
2	20	5	25
2	10		5
	5		

$$40 = 2 \times 2 \times 2 \times 5$$

$$50 = 2 \times 5$$

$$\text{LCM} = 2 \times 5 \times 2 \times 2 \times 5$$

$$= 200$$

e) 56 and 64

2	56	2	64
2	28	2	32
2	14	2	16
	7	2	8
		2	4
			2

$$56 = 2 \times 2 \times 2 \times 7$$

$$64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2$$

$$\text{LCM} = 2 \times 2 \times 2 \times 7 \times 2 \times 2$$

$$= 4 \times 4 \times 14 = 8 \times 14 \times 2$$

$$= ~~448~~ 448 \quad = 224 \times 2$$

$$= 448$$



f) 96 and 144

2	96	2	144
2	48	2	72
2	24	2	36
2	12	2	18
2	6	3	9
	3		3

$$96 = 2 \times 2 \times 2 \times 2 \times 2 \times 3$$
$$144 = 2 \times 2 \times 2 \times 2 \times 3 \times 3$$

$$\begin{aligned} \bullet \text{ LCM} &= 2 \times 2 \times 2 \times 2 \times 3 \times 3 \\ &= 4 \times 4 \times 6 \times 3 \\ &= 16 \times 18 \\ &= 288 \end{aligned}$$

g) 36 and 42

$$\begin{array}{r|l} 2 & 36 \\ \hline 3 & 18 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

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

$$36 = 2 \times 2 \times 3 \times 3$$

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

$$\text{LCM} = 2 \times 3 \times 7 \times 3 \times 2$$

$$= 252$$

h) 21 and 36

$$\begin{array}{r|l} 3 & 21 \\ \hline & 7 \end{array}$$

$$\begin{array}{r|l} 2 & 36 \\ \hline 3 & 18 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

$$21 = 3 \times 7$$

$$36 = 3 \times 2 \times 2 \times 3$$

$$\text{LCM} = 3 \times 2 \times 2 \times 3 \times 7$$

$$= 252$$

i) 15 and 45

$$\begin{array}{r|l} 3 & 15 \\ \hline & 5 \end{array}$$

$$\begin{array}{r|l} 3 & 45 \\ \hline 3 & 9 \\ \hline & 3 \end{array}$$

$$15 = 3 \times 5$$

$$45 = 3 \times 3 \times 3$$

$$\text{LCM} = 3 \times 3 \times 3 \times 5$$

$$= 45$$

i) 10, 20 and 30

$$\begin{array}{r|l} 3 & 10 \\ \hline & 5 \end{array} \quad \begin{array}{r|l} 3 & 20 \\ \hline 3 & 10 \\ & 5 \end{array} \quad \begin{array}{r|l} 3 & 30 \\ \hline 3 & 15 \\ & 5 \end{array}$$

$$10 = 2 \times 5$$

$$20 = 2 \times 2 \times 5$$

$$30 = 3 \times 3 \times 5$$

$$\text{LCM} = 2 \times 5 \times 2 \times 3$$

$$= 60$$