

2.

a) 16 and 48

2	16
2	8
2	4
	2

2	48
2	24
2	12
2	6
	3

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

$$\text{LCM} = 48$$

b) 8, 12 and 16

2	8
2	4
2	2

2	12
2	6
	3

2	16
2	8
2	4
	2

2	8
2	4
	2

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

$$\text{LCM} = 48$$

c) 20 and 25

$$\begin{array}{r|l} 2 & 20 \\ \hline 2 & 10 \\ \hline & 5 \end{array} \qquad \begin{array}{r|l} 5 & 25 \\ \hline & 5 \end{array}$$

LCM = $2 \times 2 \times 5 \times 5$

LCM = 100

d) 40 and 50

$$\begin{array}{r|l} 2 & 40 \\ \hline 2 & 20 \\ \hline 2 & 10 \\ \hline & 5 \end{array} \qquad \begin{array}{r|l} 2 & 50 \\ \hline 5 & 25 \\ \hline & 5 \end{array}$$

LCM = $2 \times 2 \times 2 \times 5 \times 5$

LCM = 200

e) 56 and 64

2	56
2	28
2	14
	7

2	64
2	32
2	16
2	8
2	4
	2

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

$$\therefore \text{LCM} = 448$$

f) 96 and 144

2	96
2	48
2	24
2	12
2	6
	3

2	144
2	72
2	36
2	18
3	9
	3

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

$$\text{LCM} = 288$$

g) 36 and 42

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

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

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

$$\text{LCM} = 252$$

h) 21 and 36

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

$$\begin{array}{r|l} 3 & 36 \\ \hline 2 & 12 \\ \hline 2 & 6 \\ \hline & 3 \end{array}$$

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

$$\text{LCM} = 252$$

i) 15 and 45

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

$$\begin{array}{r|l} 3 & 45 \\ \hline 5 & 15 \\ \hline & 3 \end{array}$$

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

$$\text{LCM} = 45$$

j) 10, 20 and 30

$\begin{array}{r l} 2 & 10 \\ \hline & 5 \end{array}$	$\begin{array}{r l} 2 & 20 \\ \hline 5 & 10 \\ & 2 \end{array}$	$\begin{array}{r l} 2 & 30 \\ \hline 5 & 15 \\ & 3 \end{array}$
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$\text{LCM} = 2 \times 2 \times 3 \times 5$

$\text{LCM} = 60$