

PRIME FACTORISATION USING LADDER METHOD: MEMO

1) 27

3	27
3	9
3	3
	1

$27 = 3 \times 3 \times 3$

2) 30

2	30
3	15
5	5
	1

$30 = 2 \times 3 \times 5$

3) 52

2	52
2	26
13	13
	1

$52 = 2 \times 2 \times 13$

4) 63

3	63
3	21
7	7
	1

$63 = 3 \times 3 \times 7$

5) 74

2	74
37	37
	1

$74 = 2 \times 37$

6) 66

2	66
3	33
11	11
	1

$66 = 2 \times 3 \times 11$

7) 55

5	55
11	11
	1

$55 = 5 \times 11$

8) 72

2	72
2	36
2	18
3	9
3	3
	1

$72 = 2 \times 2 \times 2 \times 3 \times 3$

9) 81

$$\begin{array}{r|l}
 3 & 81 \\
 \hline
 3 & 27 \\
 \hline
 3 & 9 \\
 \hline
 3 & 3 \\
 \hline
 & 1
 \end{array}$$

$$81 = 3 \times 3 \times 3 \times 3$$

10) 105

$$\begin{array}{r|l}
 3 & 105 \\
 \hline
 5 & 35 \\
 \hline
 7 & 7 \\
 \hline
 & 1
 \end{array}$$

$$105 = 3 \times 5 \times 7$$

11) 120

$$\begin{array}{r|l}
 2 & 120 \\
 \hline
 2 & 60 \\
 \hline
 2 & 30 \\
 \hline
 3 & 15 \\
 \hline
 5 & 5 \\
 \hline
 & 1
 \end{array}$$

$$120 = 2 \times 2 \times 2 \times 3 \times 5$$

12) 99

$$\begin{array}{r|l}
 3 & 99 \\
 \hline
 3 & 33 \\
 \hline
 11 & 11 \\
 \hline
 & 1
 \end{array}$$

$$99 = 3 \times 3 \times 11$$

13) 93

$$\begin{array}{r|l}
 3 & 93 \\
 \hline
 31 & 31 \\
 \hline
 & 1
 \end{array}$$

$$93 = 3 \times 31$$

14) 98

$$\begin{array}{r|l}
 2 & 98 \\
 \hline
 49 & 49 \\
 \hline
 & 1
 \end{array}$$

$$98 = 2 \times 49$$

15) 87

$$\begin{array}{r|l}
 3 & 87 \\
 \hline
 29 & 29 \\
 \hline
 & 1
 \end{array}$$

$$87 = 3 \times 29$$

16) 114

$$\begin{array}{r|l}
 2 & 114 \\
 \hline
 3 & 57 \\
 \hline
 19 & 19 \\
 \hline
 & 1
 \end{array}$$

$$114 = 2 \times 3 \times 19$$

17) 504

$$\begin{array}{r|l}
 2 & 504 \\
 \hline
 2 & 252 \\
 \hline
 2 & 126 \\
 \hline
 3 & 63 \\
 \hline
 3 & 21 \\
 \hline
 7 & 7 \\
 \hline
 & 1
 \end{array}$$

$$504 = 2 \times 2 \times 2 \times 3 \times 3 \times 7$$

18) 630

$$\begin{array}{r|l}
 2 & 630 \\
 \hline
 3 & 315 \\
 \hline
 3 & 105 \\
 \hline
 5 & 35 \\
 \hline
 7 & 7 \\
 \hline
 & 1
 \end{array}$$

$$630 = 2 \times 3 \times 3 \times 5 \times 7$$

19) 990

$$\begin{array}{r|l}
 2 & 990 \\
 \hline
 3 & 495 \\
 \hline
 3 & 165 \\
 \hline
 5 & 55 \\
 \hline
 11 & 11 \\
 \hline
 & 1
 \end{array}$$

$$990 = 2 \times 3 \times 3 \times 5 \times 11$$

20) 360

$$\begin{array}{r|l}
 2 & 360 \\
 \hline
 2 & 180 \\
 \hline
 2 & 90 \\
 \hline
 3 & 45 \\
 \hline
 3 & 15 \\
 \hline
 5 & 5 \\
 \hline
 & 1
 \end{array}$$

$$360 = 2 \times 2 \times 2 \times 3 \times 3 \times 5$$