

The prime factors of 1323 are

7) $1323 = (3 \times 3 \times 3) \times 7 \times 7$
 $\therefore 1323$ must be multiplied by 7

2	8768	3	1323
2	4384	3	441
2	2192	3	147

8) The prime factors of 8768 are
 $8768 = (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times 137$
 $\therefore 8768$ must be divided by 137.

2	1096	7	49
2	548	7	7
2	274		1
137	137		

9) The prime factors of 27783 are
 $27783 = (3 \times 3 \times 3) \times 3 \times 7 \times 7 \times 7$
 $\therefore 27783$ must be multiplied by $3 \times 3 = 9$

6	1	3	27783
		3	9261
		3	3087
		3	1029

10) The prime factors of 8640 are
 $8640 = (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times (3 \times 3 \times 3) \times 5$
 $\therefore 8640$ must be ~~multiplied~~ divided by 5

7	343
7	49
7	7
	1

11) The prime factors of 77175 are
 $77175 = (3 \times 3) \times (5 \times 5) \times (7 \times 7 \times 7) = 3 \times 5 = 15$
 $\therefore 77175$ must be multiplied by 15

3	77175	2	8640
3	25725	2	4320
5	8575	2	2160
5	1715	2	1080
7	343	2	540
7	49	2	270
7	7	3	135
		2	45