

Exercise 4(A)

7) 1323
 Prime factor of 1323
 $= 3 \times 3 \times 3 \times 7 \times 7$
 $= (3 \times 3 \times 3) \times 7 \times 7$
 $\therefore 1323$ must be multiplied
 by 7.

3 | 1323
 3 | 441
 3 | 147
 7 | 49
 7 | 7
 1

8) 8768
 Prime factor of 8768
 $= 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 137$
 $= (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times 137$
 $\therefore 8768$ must be divided
 by 137.

2 | 8768
 2 | 4384
 2 | 2192
 2 | 1096
 2 | 548
 2 | 274
 2 | 137

9) 27783
 Prime factor of 27783
 $= 3 \times 3 \times 3 \times 3 \times 7 \times 7 \times 7$
 $= (3 \times 3 \times 3) \times (7 \times 7 \times 7) \times 3$
 $\therefore 27783$ must be
 multiplied by $3 \times 3 = 9$.

3 | 27783
 3 | 9261
 3 | 3087
 3 | 1029
 7 | 343
 7 | 49
 7

10) 8640
 Prime factor of 8640
 $= 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5$
 $= (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times (3 \times 3 \times 3) \times 5$
 $\therefore 8640$ must be multiplied
 by 5.

2 | 8640
 2 | 4320
 2 | 2160
 2 | 1080
 2 | 540
 2 | 270
 3 | 90
 3 | 30
 3 | 10
 5 | 2
 1

11) 77175
 Prime factor of 77175
 $= 3 \times 3 \times 3 \times 5 \times 7 \times 7 \times 7$
 $= (7 \times 7 \times 7) \times 3 \times 3 \times 5 \times 5$

$\therefore 77175$ must be multiplied by $3 \times 5 = 15$.

3		77175
3		25725
5		8575
5		1715
7		301
7		49
		7