

Rational - Factorisation

Ex5

The examples below are intended to be used as exercises in mental arithmetic and the student should *not* make use of a calculator or other aid. Each example requires the student to factorise the number given into its component factors, all of which shall be a prime number (for example $2197 = 13 \times 13 \times 13$)!

1. $88862 = 2 \times 157 \times 283$

11. $15123 = 3 \times 71 \times 71$

2. $53834 = 2 \times 11 \times 2447$

12. $34596 = 2 \times 2 \times 3 \times 3 \times 31 \times 31$

3. $15548 = 2 \times 2 \times 13 \times 13 \times 23$

13. $70574 = 2 \times 13 \times 2579$

4. $12996 = 2 \times 2 \times 3 \times 3 \times 19 \times 19$

14. $33468 = 2 \times 2 \times 3 \times 2789$

5. $17022 = 2 \times 3 \times 2837$

15. $39744 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 23$

6. $23579 = 17 \times 19 \times 73$

16. $21849 = 3 \times 2789$

7. $85169 = 7 \times 23 \times 23 \times 23$

17. $94269 = 3 \times 7 \times 67 \times 67$

8. $78519 = 3 \times 7 \times 3739$

18. $17303 = 11 \times 11 \times 11 \times 13$

9. $61059 = 3 \times 20353$

19. $42471 = 3 \times 3 \times 3 \times 11 \times 11 \times 13$

10. $29457 = 3 \times 3 \times 3 \times 1091$

20. $27993 = 3 \times 7 \times 31 \times 43$