PRODUCT OF PRIME FACTORS

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

1. Express 12 as a product of its prime factors

2. Express 18 as a product of its prime factors

3. Express 24 as a product of its prime factors

4. Express 30 as a product of its prime factors

5. Express 36 as a product of its prime factors

6. Express 42 as a product of its prime factors

7. Express 50 as a product of its prime factors

8. Express 56 as a product of its prime factors

9. Express 60 as a product of its prime factors

10. Express 72 as a product of its prime factors

11. Express 84 as a product of its prime factors

12. Express 90 as a product of its prime factors

13. Express 96 as a product of its prime factors

14. Express 108 as a product of its prime factors

15. Express 120 as a product of its prime factors

16. Express 132 as a product of its prime factors

17. Express 144 as a product of its prime factors

18. Express 150 as a product of its prime factors

19. Express 168 as a product of its prime factors

20. Express 180 as a product of its prime factors

23.

Express 240 as a product of its prime factors

24.

Express 252 as a product of its prime factors

25.

Express 270 as a product of its prime factors

26.

Express 288 as a product of its prime factors

27.

Express 300 as a product of its prime factors

28.

Express 324 as a product of its prime factors

29.

Express 360 as a product of its prime factors

30.

Express 420 as a product of its prime factors

MASTER QUESTIONS

M1.

A rectangular garden measures 24 metres by 36 metres. Express the area in square metres as a product of prime factors

M2.

A factory produces boxes that can hold 60 items each. Express the number of items in 12 boxes as a product of prime factors

M3.

A school has 180 students and 12 classrooms. Express the maximum number of students per classroom if divided equally as a product of prime factors

M4.

A recipe requires 250g of flour and makes 10 portions. Express the flour per portion in grams as a product of prime factors

M5.

A cube has a volume of 216 cubic centimetres. Express the length of one side in centimetres as a product of prime factors

M6.

A bus route takes 84 minutes to complete one circuit. Express the time for 6 circuits in minutes as a product of prime factors

M7.

A bookshelf can hold 48 books per shelf and has 5 shelves. Express the total capacity as a product of prime factors

M8.

M9.

A school year has 195 days divided into 3 equal terms. Express the number of days per term as a product of prime factors

M10.

A rectangular field has an area of 525 square metres and length 35 metres. Express the width in metres as a product of prime factors