Test - Factors, multiples, primes, squares and cubes

Year: Year 5 · Duration: 40 minutes · /20

Name:	Date:	**Mark: /20**

Question	1	2	3	4	5	Total
marks	4	4	4	3	5	**20**
Mark						

Show your working.

Question 1 (4 marks)

Question 1 – Factors and multiples

(a) List all the factors of 28.

(b) Write the first five multiples of 9.

(c) Is 91 a multiple of 7? Show how you know.

(d) Write all the factor pairs of 20.

Question 2 (4 marks)

Question 2 – Primes, squares and cubes

(a) Write down the prime numbers between 20 and 40.

(b) Is 57 prime? Explain.

(c) Work out 6^2 and 4^3.

(d) Which number in this list is a square number and a cube number: 8, 27, 36, 64?

Question 3 (4 marks)

Question 3 – Common factors and multiples

(a) Find the highest common factor of 24 and 36.

(b) Find the lowest common multiple of 6 and 10.

(c) Write 84 as a product of prime factors.

Question 4 (3 marks)

Question 4 – Divisibility

(a) Is 4,572 divisible by 9? Show your working.

(b) Write a three-digit number that is divisible by both 5 and 3.

(c) Explain why every number that ends in 4 is composite.

Question 5 (5 marks)

Question 5 – The school library

The school library has 72 new books to put on shelves. Each shelf must hold the same number of books and every shelf is full.

(a) Write 72 as a product of prime factors. (1 mark)

(b) The librarian uses 9 shelves. How many books are on each shelf? (1 mark)

(c) She wants more than 4 but fewer than 10 books on each shelf. Write all the possible numbers of books per shelf. (2 marks)

(d) The librarian says that 72 books could also be arranged in a square. Is she right? Explain. (1 mark)