Factors, Multiples and Prime Numbers

Grade 4 · 6 questions · step-by-step answers at the end

Name: Date: Score: / 6

USEFUL EQUATIONS

$12 = 2 \times 2 \times 3 = 2^2 \times 3$ HCF × LCM = product of the two numbers

prime: exactly two factors multiples of n: n, 2n, 3n, …

Questions

Show your working in the space under each question.

1. EASY Write the first five multiples of 7.

2. EASY Is 51 a prime number?

3. MEDIUM List the factor pairs of 36.

4. MEDIUM Write 60 as a product of prime factors.

5. HARD One bus leaves every 4 minutes and another every 6 minutes. They leave together now. When do they next leave together?

6. HARD Find the HCF and LCM of 48 and 60.

Step-by-step answers

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1. **7, 14, 21, 28, 35**.
2. $51 = 3 \times 17$, so **no**.
3. **1 × 36, 2 × 18, 3 × 12, 4 × 9, 6 × 6**.
4. $60 = 2 \times 30 = 2 \times 2 \times 15 = \mathbf{2^2 \times 3 \times 5}$.
5. The LCM of 4 and 6 is 12, so after **12 minutes**.
6. $48 = 2^4 \times 3$ and $60 = 2^2 \times 3 \times 5$. HCF $= 2^2 \times 3 = \mathbf{12}$. LCM $= 2^4 \times 3 \times 5 = \mathbf{240}$.