Number Properties: Medium Practice Paper 6

Q1. Which of these is 60 written as a product of its prime factors?

A. 2 × 2 × 3 × 5

B. 2 × 3 × 5

C. 2 × 2 × 2 × 5

D. 2 × 3 × 3 × 5

E. 2 × 2 × 3 × 3

Q2. Which of these numbers is divisible by 3 but NOT by 9?

A. 126 *B.* 156 *C.* 189 *D.* 234 *E.* 261

Q3. The table shows four numbers and how many factors each is said to have. One row is wrong. Which number is it?

Number	Factors
12	6
16	5
18	6
20	5

A. 12

B. 16

C. 18

D. 20

E. None of them

Q4. What is the difference between 9 squared and 4 cubed?

A. 13 *B.* 17 *C.* 19 *D.* 23 *E.* 145

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Q5. A number has exactly three factors. What must be true about it?

A. It is a prime number multiplied by itself

B. It is a prime number

C. It is an odd number

D. It is a cube number

E. It is a multiple of 3

Q6. Which of these numbers is a common multiple of 4 and 6 but NOT a multiple of 8?

A. 24 *B.* 36 *C.* 48 *D.* 64 *E.* 72

Q7. I am a two-digit even number. I am a multiple of 9 and I am less than 30. What number am I?

A. 12 *B.* 18 *C.* 24 *D.* 27 *E.* 36

Q8. How many numbers between 1 and 50 are multiples of 6?

A. 6 *B.* 7 *C.* 8 *D.* 9 *E.* 12

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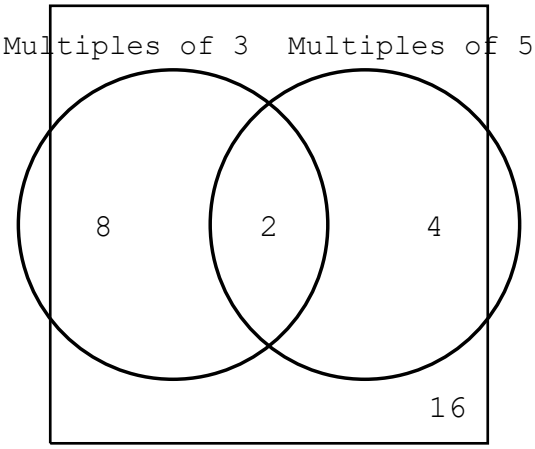
Q9. The Venn diagram sorts the numbers from 1 to 30. How many of them are multiples of 3?



A. 2 *B.* 8 *C.* 10 *D.* 12 *E.* 14

Q10. Which of these statements is always true?

A. The sum of two odd numbers is even

B. The sum of two even numbers is odd

C. An odd number multiplied by an odd number is even

D. Every prime number is odd

E. Every square number is even

Q11. What is 5 squared added to 3 cubed?

A. 34 *B.* 42 *C.* 52 *D.* 61 *E.* 64

Q12. When 24 is written as a product of prime factors, how many prime factors does it have altogether, counting any repeats?

A. 2 *B.* 3 *C.* 4 *D.* 6 *E.* 8

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Q13. Cups come in packs of 4 and saucers in packs of 6. Rina buys the same number of each, using whole packs and as few as possible. How many packs of cups does she buy?

A. 2 *B.* 3 *C.* 4 *D.* 6 *E.* 12

Q14. Which of these numbers has an EVEN number of factors?

A. 16 *B.* 25 *C.* 36 *D.* 49 *E.* 50

Q15. Anya says, “Every number ending in 3 is prime.” Which number shows that she is wrong?

A. 13 *B.* 23 *C.* 33 *D.* 43 *E.* 53

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