

Number Properties: Hard Practice Paper 8

Q1. What is the highest common factor (HCF) of 150 and 225?

- A. 15 B. 25 C. 45 D. 75 E. 90

Q2. What is the lowest common multiple (LCM) of 16 and 20?

- A. 40 B. 60 C. 80 D. 160 E. 320

Q3. How many factors does 144 have?

- A. 12 B. 13 C. 14 D. 15 E. 16

Q4. The table shows how many factors each of four numbers has. Which number must be a square number?

Number	How many factors
p	6
q	9
r	4
s	8

- A. p
B. q
C. r
D. s
E. None of them

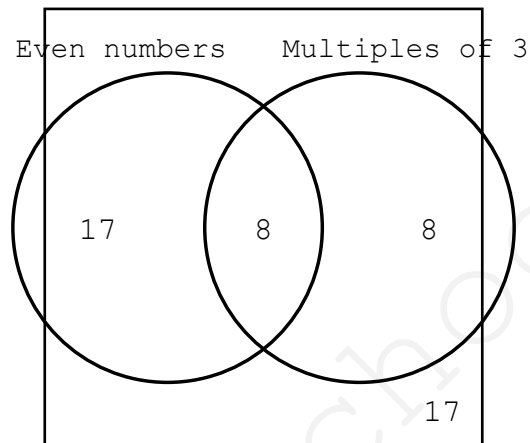
Q5. What is the smallest three-digit number that is divisible by 7?

- A. 100 B. 102 C. 105 D. 107 E. 112

Q6. A number is squared and then 5 is subtracted, giving 76. What was the number?

- A. 7 B. 8 C. 9 D. 11 E. 13

Q7. The Venn diagram sorts the numbers from 1 to 50. How many of them are even, or a multiple of 3, or both?



- A. 17 B. 25 C. 28 D. 33 E. 41

Q8. Which of these statements about prime numbers is FALSE?

- A. Every prime number is odd
B. There is only one even prime number
C. A prime number has exactly two factors
D. The number 1 is not prime
E. 2 is the smallest prime number

Q9. What is the sum of the prime factors of 66?

- A. 11 B. 14 C. 16 D. 20 E. 33

Q10. Two cogs have 15 teeth and 20 teeth. They start with a marked tooth on each touching. How many turns does the smaller cog make before the marks touch again?

- A. 3 B. 4 C. 5 D. 15 E. 20

Q11. How many numbers from 1 to 100 have exactly two factors?

- A. 15 B. 18 C. 20 D. 24 E. 25

Q12. A square number is taken away from 100 and the answer is also a square number. Which pair of square numbers is it?

- A. 36 and 64 B. 25 and 75 C. 49 and 51 D. 16 and 84 E. 81 and 19

Q13. Which of these numbers is the product of three DIFFERENT prime numbers?

- A. 27 B. 30 C. 45 D. 49 E. 64

Q14. Which of these numbers is divisible by both 8 and 9?

- A. 108 B. 128 C. 144 D. 162 E. 184

Q15. A pile of counters is shared into equal piles. With 4 piles, 5 piles or 6 piles there are always 2 counters left over. What is the smallest possible number of counters, given that there is more than one?

- A. 22 B. 32 C. 42 D. 62 E. 122