

Number Properties: Hard Practice Paper 1

Q1. What is the highest common factor (HCF) of 84 and 126?

- A. 6 B. 14 C. 21 D. 42 E. 63

Q2. What is the lowest common multiple (LCM) of 12, 15 and 20?

- A. 30 B. 60 C. 120 D. 180 E. 300

Q3. Which of these numbers has exactly 6 factors?

- A. 8 B. 12 C. 15 D. 16 E. 25

Q4. Which of these numbers between 90 and 100 is a prime number?

- A. 91 B. 93 C. 95 D. 97 E. 99

Q5. Two numbers have a highest common factor of 6 and a lowest common multiple of 36. One of the numbers is 12. What is the other number?

- A. 6 B. 15 C. 18 D. 24 E. 30

Q6. Cards numbered 1 to 100 are laid out. How many of them show a square number?

- A. 8 B. 9 C. 10 D. 11 E. 12

Q7. What is the smallest number that must be added to 47 to make a multiple of 9?

- A. 4 B. 5 C. 6 D. 7 E. 8

Q8. What is $-7 - (-12)$?

- A. -19 B. -5 C. 5 D. 19 E. 84

Q9. One of these numbers has an odd number of factors. Which is it?

- A. 45 B. 56 C. 72 D. 81 E. 90

Q10. At 8:00 a bus and a train both leave a station. Buses leave every 9 minutes and trains every 12 minutes. At what time do a bus and a train next leave together?

- A. 8:18 B. 8:24 C. 8:36 D. 9:00 E. 9:48

Q11. The product of two consecutive whole numbers is 156. What is the smaller number?

- A. 11 B. 12 C. 13 D. 14 E. 78

Q12. Which of these numbers is a multiple of 6 and also a square number?

- A. 24 B. 30 C. 36 D. 48 E. 64

Q13. A gardener plants 60 tulips and 48 roses in rows. Every row has the same number of tulips and the same number of roses, using all the flowers. What is the greatest number of rows?

- A. 6 B. 8 C. 10 D. 12 E. 15

Q14. What is the sum of the prime numbers between 20 and 30?

- A. 46 B. 50 C. 52 D. 75 E. 104

Q15. At midnight the temperature is -6°C . By noon it has risen 11 degrees, and by evening it has fallen 4 degrees from its noon value. What is the evening temperature?

- A. -9°C B. -1°C C. 1°C D. 9°C E. 21°C

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