

Number Properties: Hard Practice Paper 5

Q1. What is the highest common factor (HCF) of 105 and 135?

- A. 3 B. 5 C. 9 D. 15 E. 45

Q2. What is the lowest common multiple (LCM) of 4, 6 and 10?

- A. 20 B. 30 C. 60 D. 120 E. 240

Q3. Which of these numbers has exactly 5 factors?

- A. 12 B. 16 C. 20 D. 24 E. 32

Q4. How many prime numbers are there between 30 and 50?

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

Q5. Two numbers have a highest common factor of 9 and a lowest common multiple of 90. One of the numbers is 18. What is the other number?

- A. 27 B. 36 C. 45 D. 54 E. 81

Q6. What is the smallest three-digit number that is divisible by both 4 and 5?

- A. 100 B. 105 C. 110 D. 120 E. 140

Q7. What is the square root of 144 minus the square root of 25?

- A. 7 B. 17 C. 19 D. 119 E. 169

Q8. Which of these calculations gives the largest answer?

- A. $-3 + 8$ B. $-10 + 12$ C. $4 - 9$ D. $-6 + 7$ E. $2 - 11$

Q9. Which of these numbers is a square number between 200 and 300?

- A. 210 B. 225 C. 240 D. 260 E. 280

Q10. A baker has fewer than 40 cakes. When he packs them in boxes of 8, exactly 3 are left over. The number of cakes is also a multiple of 5. How many cakes are there?

- A. 11 B. 19 C. 25 D. 30 E. 35

Q11. Which of these numbers is divisible by 3, 4 and 5?

- A. 90 B. 100 C. 110 D. 120 E. 150

Q12. What is the smallest square number that is also a multiple of 12?

- A. 24 B. 36 C. 48 D. 72 E. 144

Q13. How many numbers from 1 to 30 have exactly two factors?

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

Q14. The number 6 is a perfect number, because its factors apart from itself (1, 2 and 3) add up to 6. Which of these is also a perfect number?

- A. 12 B. 16 C. 24 D. 28 E. 30

Q15. At 6 am the temperature was -5°C . It rose by 2 degrees every hour. At what time did it reach 3°C ?

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