Chapter 4 Exam v1

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the GCD for the given numbers by an appropriate method.

1) 960 and 1800 1) _____

A) 60 B) 120 C) 360 D) 960

Use least common multiple or greatest common divisor to solve the problem.

2) George has 336 donuts and 462 bagels. He wants to divide his bagels and donuts into stacks so that there are the same number of pastries in each stack. What is the greatest number of pastries that he can place in each stack? 2) _____

A) 43 B) 44 C) 42 D) 45

Find the GCD or LCM as indicated.

3) Given 60 and 30, find the GCD. 3) _____

A) 15 B) 10 C) 6 D) 30

Classify as true or false.

4) For all natural numbers a and b, LCM(a, b)|GCD(a, b). 4) _____

A) True B) False

Classify the statement as true or false.

5) If a number is divisible by 8, then it is also divisible by 16. 5) _____

A) True B) False

Identify the number as prime, composite, or neither.

6) 163 6) _____

A) Neither B) Prime C) Composite

Find the LCM for the given numbers by an appropriate method.

7) 168 and 126 7) _____

A) 1008 B) 1512 C) 504 D) 42

Provide the appropriate response.

8) Find the least positive number divisible by two primes. 8) _____

A) 2 B) 3 C) 6 D) 4

Find the GCD for the given numbers by an appropriate method.

9) 60 and 90 9) _____

A) 10 B) 6 C) 15 D) 30

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Determine all possible digits to place in the square that make the statement true. If none exist, state this.

10) 4,□21 is divisible by 4. 10) _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the prime factorization.

11) $15^3 \cdot 33 \cdot 343^2$ 11) _____

A) $3^2 \cdot 5^3 \cdot 76 \cdot 11$ B) $3^4 \cdot 5 \cdot 7^3 \cdot 11$ C) $3^4 \cdot 5^3 \cdot 76 \cdot 11$ D) $3^4 \cdot 5^3 \cdot 72 \cdot 11$

Classify as true or false.

12) For all natural numbers a and b, GCD(a, b)$|$ab. 12) _____

A) True B) False

Use least common multiple or greatest common divisor to solve the problem.

13) Bob's frog can travel 7 inches per jump, Kim's frog can travel 9 inches, and Jack's frog can travel 13 inches. If the three frogs start off at point 0 inches, how many inches will it be to the next point that all three frogs touch? 13) _____

A) 117 inches B) 819 inches C) 29 inches D) 63 inches

Without using a calculator, determine whether the first number is divisible by the second number.

14) Is 6,703,279 divisible by 11? 14) _____

A) Yes B) No

Classify as true or false.

15) If GCD(a, b) = a, then a$|$b. 15) _____

A) True B) False

Identify the number as prime, composite, or neither.

16) 126 16) _____

A) Neither B) Composite C) Prime

Without using a calculator, determine whether the first number is divisible by the second number.

17) Is 198,819 divisible by 9? 17) _____

A) Yes B) No

18) Is 732,275 divisible by 5? 18) _____

A) Yes B) No

Classify as true or false, assuming that a, b, c, and d are whole numbers and $d \neq 0$.

19) If d$|a^3$, then d$|$a. 19) _____

A) True B) False

Find the LCM for the given numbers by an appropriate method.

20) 45, 56, and 150 20) _____

A) 2520 B) 1,050 C) 1260 D) 12,600