

Lesson 4.4 LCM

Multiple Choice

Identify the choice that best completes the statement or answers the question.

1. A carpenter wants to bolt two long boards together for strength. The boards are 288 inches (24 feet) long. By mistake he tells one helper to drill the holes for the bolts every 12 inches and tells another to drill the holes for the bolts every 18 inches. How far along the boards will the holes match for the first time?
 - A. 45 inches
 - B. 18 inches
 - C. 54 inches
 - D. 36 inches

Find the LCM by listing multiples or prime factorization.

2. 15, 9, 12
 - A. 90
 - B. 180
 - C. 360
 - D. 60
3. The LCM of two numbers is 36. Their GCF is 6. The numbers differ by 6. What are the numbers?
 - A. 13, 17
 - B. 12, 18
 - C. 13, 18
 - D. 12, 19

Numeric Response

1. Find the LCM using prime factorization or listing multiples.
12, 20

Short Answer

Find the LCM by listing multiples or prime factorization.

1. 18, 42

Find the LCM using prime factorization or listing.

2. 6, 15, 20
3. 36, 60

Find the GCF and the LCM of the numbers using prime factorization.

4. 25, 135
5. 15, 40

6.
 - A. Find the greatest common factor of 495 and 616. Show your work.
 - B. Find the least common multiple of 495 and 616. Explain how you can use the greatest common factor in your calculations.
7.
 - A. Draw a factor tree for 28 and a factor tree for 18 and write the prime factorization of each number.
 - B. What prime factors do 28 and 18 have in common?
 - C. What is the least common multiple of 28 and 18? Explain how you found it.
8. What method would you use to find the LCM of 6 and 14?
9. List the first five multiples of 9 and 12. Then use the lists to find the least common multiple.