

Least Common Multiple (J)

Name: _____

Date: _____

Determine the least common multiple using the prime factors of each number.

1. 34 =

40 =

LCM =

2. 16 =

24 =

LCM =

3. 12 =

28 =

LCM =

4. 42 =

20 =

LCM =

5. 22 =

48 =

LCM =

6. 15 =

20 =

LCM =

7. 10 =

4 =

LCM =

8. 9 =

12 =

LCM =

9. 45 =

20 =

LCM =

10. 34 =

30 =

LCM =

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Name: _____

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Determine the least common multiple using the prime factors of each number.

$$\begin{aligned} 1. \quad 34 &= 2 \times 17 \\ 40 &= 2^3 \times 5 \\ \text{LCM} &= 2^3 \times 5 \times 17 \\ &= 680 \end{aligned}$$

$$\begin{aligned} 2. \quad 16 &= 2^4 \\ 24 &= 2^3 \times 3 \\ \text{LCM} &= 2^4 \times 3 \\ &= 48 \end{aligned}$$

$$\begin{aligned} 3. \quad 12 &= 2^2 \times 3 \\ 28 &= 2^2 \times 7 \\ \text{LCM} &= 2^2 \times 3 \times 7 \\ &= 84 \end{aligned}$$

$$\begin{aligned} 4. \quad 42 &= 2 \times 3 \times 7 \\ 20 &= 2^2 \times 5 \\ \text{LCM} &= 2^2 \times 3 \times 5 \times 7 \\ &= 420 \end{aligned}$$

$$\begin{aligned} 5. \quad 22 &= 2 \times 11 \\ 48 &= 2^4 \times 3 \\ \text{LCM} &= 2^4 \times 3 \times 11 \\ &= 528 \end{aligned}$$

$$\begin{aligned} 6. \quad 15 &= 3 \times 5 \\ 20 &= 2^2 \times 5 \\ \text{LCM} &= 2^2 \times 3 \times 5 \\ &= 60 \end{aligned}$$

$$\begin{aligned} 7. \quad 10 &= 2 \times 5 \\ 4 &= 2^2 \\ \text{LCM} &= 2^2 \times 5 \\ &= 20 \end{aligned}$$

$$\begin{aligned} 8. \quad 9 &= 3^2 \\ 12 &= 2^2 \times 3 \\ \text{LCM} &= 2^2 \times 3^2 \\ &= 36 \end{aligned}$$

$$\begin{aligned} 9. \quad 45 &= 3^2 \times 5 \\ 20 &= 2^2 \times 5 \\ \text{LCM} &= 2^2 \times 3^2 \times 5 \\ &= 180 \end{aligned}$$

$$\begin{aligned} 10. \quad 34 &= 2 \times 17 \\ 30 &= 2 \times 3 \times 5 \\ \text{LCM} &= 2 \times 3 \times 5 \times 17 \\ &= 510 \end{aligned}$$