

Least Common Multiple (I)

Name: _____

Date: _____

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

1. $26 =$

$68 =$

LCM =

2. $8 =$

$14 =$

LCM =

3. $45 =$

$6 =$

LCM =

4. $63 =$

$30 =$

LCM =

5. $55 =$

$25 =$

LCM =

6. $98 =$

$94 =$

LCM =

7. $22 =$

$96 =$

LCM =

8. $10 =$

$75 =$

LCM =

9. $32 =$

$26 =$

LCM =

10. $93 =$

$90 =$

LCM =

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Name: _____

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

$$\begin{aligned} 1. \quad 26 &= 2 \times 13 \\ 68 &= 2^2 \times 17 \\ \text{LCM} &= 2^2 \times 13 \times 17 \\ &= 884 \end{aligned}$$

$$\begin{aligned} 2. \quad 8 &= 2^3 \\ 14 &= 2 \times 7 \\ \text{LCM} &= 2^3 \times 7 \\ &= 56 \end{aligned}$$

$$\begin{aligned} 3. \quad 45 &= 3^2 \times 5 \\ 6 &= 2 \times 3 \\ \text{LCM} &= 2 \times 3^2 \times 5 \\ &= 90 \end{aligned}$$

$$\begin{aligned} 4. \quad 63 &= 3^2 \times 7 \\ 30 &= 2 \times 3 \times 5 \\ \text{LCM} &= 2 \times 3^2 \times 5 \times 7 \\ &= 630 \end{aligned}$$

$$\begin{aligned} 5. \quad 55 &= 5 \times 11 \\ 25 &= 5^2 \\ \text{LCM} &= 5^2 \times 11 \\ &= 275 \end{aligned}$$

$$\begin{aligned} 6. \quad 98 &= 2 \times 7^2 \\ 94 &= 2 \times 47 \\ \text{LCM} &= 2 \times 7^2 \times 47 \\ &= 4606 \end{aligned}$$

$$\begin{aligned} 7. \quad 22 &= 2 \times 11 \\ 96 &= 2^5 \times 3 \\ \text{LCM} &= 2^5 \times 3 \times 11 \\ &= 1056 \end{aligned}$$

$$\begin{aligned} 8. \quad 10 &= 2 \times 5 \\ 75 &= 3 \times 5^2 \\ \text{LCM} &= 2 \times 3 \times 5^2 \\ &= 150 \end{aligned}$$

$$\begin{aligned} 9. \quad 32 &= 2^5 \\ 26 &= 2 \times 13 \\ \text{LCM} &= 2^5 \times 13 \\ &= 416 \end{aligned}$$

$$\begin{aligned} 10. \quad 93 &= 3 \times 31 \\ 90 &= 2 \times 3^2 \times 5 \\ \text{LCM} &= 2 \times 3^2 \times 5 \times 31 \\ &= 2790 \end{aligned}$$