

Least Common Multiple (E)

Name: _____

Date: _____

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

1. 25 =

20 =

LCM =

2. 10 =

14 =

LCM =

3. 16 =

20 =

LCM =

4. 20 =

14 =

LCM =

5. 21 =

14 =

LCM =

6. 9 =

12 =

LCM =

7. 24 =

10 =

LCM =

8. 4 =

18 =

LCM =

9. 4 =

6 =

LCM =

10. 6 =

14 =

LCM =

Least Common Multiple (E)

Name: _____

Date: _____

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

$$\begin{aligned} 1. \quad 25 &= 5^2 \\ 20 &= 2^2 \times 5 \\ \text{LCM} &= 2^2 \times 5^2 \\ &= 100 \end{aligned}$$

$$\begin{aligned} 2. \quad 10 &= 2 \times 5 \\ 14 &= 2 \times 7 \\ \text{LCM} &= 2 \times 5 \times 7 \\ &= 70 \end{aligned}$$

$$\begin{aligned} 3. \quad 16 &= 2^4 \\ 20 &= 2^2 \times 5 \\ \text{LCM} &= 2^4 \times 5 \\ &= 80 \end{aligned}$$

$$\begin{aligned} 4. \quad 20 &= 2^2 \times 5 \\ 14 &= 2 \times 7 \\ \text{LCM} &= 2^2 \times 5 \times 7 \\ &= 140 \end{aligned}$$

$$\begin{aligned} 5. \quad 21 &= 3 \times 7 \\ 14 &= 2 \times 7 \\ \text{LCM} &= 2 \times 3 \times 7 \\ &= 42 \end{aligned}$$

$$\begin{aligned} 6. \quad 9 &= 3^2 \\ 12 &= 2^2 \times 3 \\ \text{LCM} &= 2^2 \times 3^2 \\ &= 36 \end{aligned}$$

$$\begin{aligned} 7. \quad 24 &= 2^3 \times 3 \\ 10 &= 2 \times 5 \\ \text{LCM} &= 2^3 \times 3 \times 5 \\ &= 120 \end{aligned}$$

$$\begin{aligned} 8. \quad 4 &= 2^2 \\ 18 &= 2 \times 3^2 \\ \text{LCM} &= 2^2 \times 3^2 \\ &= 36 \end{aligned}$$

$$\begin{aligned} 9. \quad 4 &= 2^2 \\ 6 &= 2 \times 3 \\ \text{LCM} &= 2^2 \times 3 \\ &= 12 \end{aligned}$$

$$\begin{aligned} 10. \quad 6 &= 2 \times 3 \\ 14 &= 2 \times 7 \\ \text{LCM} &= 2 \times 3 \times 7 \\ &= 42 \end{aligned}$$