

Least Common Multiple

Multiple - the product of a number and any whole number.

2: 2, 4, 6, 8, 10,

3: 3, 6, 9, 12, 15,

3x: 3x, 6x, 9x, 12x, 15x,

Least Common Multiple (LCM) - the smallest multiple that two or more numbers have in common.

2: 2, 4, 6, 8, 10, ...

3: 3, 6, 9, 12, 15, ...

LCM = 6

Directions: Find the least common multiple of the numbers.

1. 8, 12

8: 8, 16, 24, 32, 40

12: 12, 24, 36, 48, 60

LCM = 24

2. 4, 9, 18

4: 4, 8, 12, 16, 20, 24, 28, 32, 36

9: 9, 18, 27, 36, 45

18: 18, 36, 54, 72, 90

LCM = 36

3. $5x^2, 12x$

5: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

12: 12, 24, 36, 48, 60

$x^2 \cdot x^1$

$$\boxed{LCM = 60x^2}$$

4. $15x^3y^2, 21xy^5$

15: 15, 30, 45, 60, 75, 90, 105

21: 21, 42, 63, 84, 105

$x^3 y^2 \cdot x^1 y^5$

$$\boxed{LCM = 105x^3y^5}$$

5. $12a^3b^2, 15abc, 20bc^2$

12: 12, 24, 36, 48, 60

15: 15, 30, 45, 60, 75

20: 20, 40, 60, 80, 100

$a^3 b^2 \cdot a^1 b^1 c^1 \cdot b^1 c^2$

$$\boxed{LCM = 60a^3b^2c^2}$$

Directions: Find the least common denominator.

6. $\frac{5}{8}, \frac{6}{20}$

8: 8, 16, 24, 32, 40

20: 20, 40, 60, 80, 100

LCD = 40

7. $\frac{5}{12}, \frac{9}{16}$

12: 12, 24, 36, 48, 60

16: 16, 32, 48, 64, 80

LCD = 48