

List ALL the factors for each of the following numbers.

1. 64

1	2	3	4	5	6	7	8
64	32	16	16	8	4	2	8

Factors of 64 : 1, 2, 4, 8, 16, 32, and 64

2. 37 :

1	2	3	4	5	6
37	18	12	9	6	3

Factors of 37 : 1, 37

3. 25 :

1	2	3	4	5
25	12	8	5	5

Factors of 25 : 1, 5, and 25

4. 28 :

1	2	3	4	5
28	14	8	7	4

Factors of 28 : 1, 2, 4, 7, 14, and 28

5. 85 :

1	2	3	4	5	6	7	8	9
85	42	28	17	17	14	10	7	5

Factors of 85: 1, 5, 17, and 85

List the greatest common factor for each of the following sets of numbers.

6. 42 :

1	2	3	4	5	6
42	21	14	7	6	7

56 :

1	2	3	4	5	6	7
56	28	14	14	8	7	8

Factors of 42: 1, 2, 3, 6, 7, 14, 21, and 42

Factors of 56: 1, 2, 4, 7, 8, 14, 28, and 56

Greatest Common Factor (GCF) = 14

7. 35:

1	2	3	4	5
35	7	14	21	7

70:

1	2	3	4	5	6	7	8
70	35	14	21	14	10	10	7

Factors of 35: 1, 5, 7, and 35

Factors of 70: 1, 2, 5, 7, 10, 14, 35, and 70

Greatest Common Factor (GCF) = 35

8. 90:

1	2	3	4	5	6	7	8	9
90	45	30	18	18	15	10	9	10

49:

1	2	3	4	5	6	7
49	7	14	21	28	35	7

Factors of 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, and 90

Factors of 49: 1, 7, and 49

Greatest Common Factor (GCF) = 1

9. 360:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
360	180	120	90	72	60	45	45	40	36	30	30	24	20	24	18	15	20

45:

1	2	3	4	5	6
45	9	15	18	9	6

Factors of 360 : 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 18, 20, 24, 30, 36, 40, 45, 60, 72, 90, 120, 180, 360

Factors of 45: 1, 3, 5, 9, 15, and 45

Greatest Common Factor (GCF) = 45

10. 27:

1	2	3	4	5
27	6	9	10	11

36:

1	2	3	4	5	6
36	18	12	9	10	6

Factors of 27: 1, 3, 9, and 27

Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, and 36

Greatest Common Factor (GCF) = 9

11. 52:

1	2	3	4	5	6	7
52	26	10	13	14	15	16

88:

1	2	3	4	5	6	7	8	9
88	44	10	22	14	15	16	11	17

Factors of 52: 1, 2, 4, 13, 26, and 52

Factors of 88: 1, 2, 4, 8, 11, 22, 44, and 88

Greatest Common Factor (GCF) = 4

Find the least common multiple for each of the following sets of numbers.

12. LCM of 3 and 7:

3:

3 6 9 12 15 18 21 24 27

7:

7 14 21 28 35

Least Common Multiple (LCM) = 21

13. LCM of 13 and 19 :

13 :

13 26 39 52 65 78 91 104 117 130
143 156 169 182 195 208 221 234 247 260

19 :

19 38 57 76 95 114 133 152 171 190
209 228 247 266 285

Least Common Multiple (LCM) = 247

14. LCM of 9 and 6:

9 :

9 18 27 36

6 :

6 12 18 24

Least Common Multiple (LCM) = 18

15. LCM of 12 and 10:

12 :

12 24 36 48 60 72

10 :

10 20 30 40 50 60 70

Least Common Multiple (LCM) = 60

16. LCM of 14 and 70:

14 :

14 28 42 56 70 84

70 :

70 140

Least Common Multiple (LCM) = 70

For each of the following, there are two numbers and either the greatest common factor of the two numbers or the least common multiple. Find what is not given (either the least common multiple or the greatest common factor).

17. 55 and 100

$$\text{LCM} = 1,100$$

$$\text{GCF} = \frac{\text{Product of 2 numbers}}{\text{LCM}}$$

$$\text{GCF} = \frac{55 \times 100}{1100}$$

$$\begin{array}{r} 100 \\ \times 55 \\ \hline 500 \\ + 5000 \\ \hline 5500 \end{array}$$

$$\text{GCF} = \frac{5500}{1100}$$

$$\begin{array}{r} 5 \\ 1100 \overline{) 5500} \\ \underline{-5500} \\ 0 \end{array}$$

$$\text{GCF} = 5$$

18. 27 and 50

$$\text{GCF} = 1$$

$$\text{LCM} = \frac{\text{Product of 2 numbers}}{\text{GCF}}$$

$$\text{LCM} = \frac{27 \times 50}{1}$$

$$\begin{array}{r} 50 \\ \times 27 \\ \hline 350 \\ + 1000 \\ \hline 1350 \end{array}$$

$$\text{LCM} = \frac{1350}{1}$$

$$\text{LCM} = 1,350$$

19. 27 and 102

$$\text{GCF} = 3$$

$$\text{LCM} = \frac{\text{Product of 2 numbers}}{\text{GCF}}$$

$$\text{LCM} = \frac{27 \times 102}{3}$$

$$\begin{array}{r} 102 \\ \times 27 \\ \hline 714 \\ + 2040 \\ \hline 2754 \end{array}$$

$$\text{LCM} = \frac{2754}{3}$$

$$\begin{array}{r} 918 \\ 3 \overline{) 2754} \\ \underline{-27} \\ 05 \\ \underline{-3} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

$$\text{LCM} = 918$$

20. 30 and 40

$$\text{LCM} = 120$$

$$\text{GCF} = \frac{\text{Product of 2 numbers}}{\text{LCM}}$$

$$\text{GCF} = \frac{30 \times 40}{120}$$

$$\begin{array}{r} 30 \\ \times 40 \\ \hline 00 \\ + 1200 \\ \hline 1200 \end{array}$$

$$\text{GCF} = \frac{1200}{120}$$

$$\begin{array}{r} 10 \\ 120 \overline{) 1200} \\ \underline{-120} \\ 00 \end{array}$$

$$\text{GCF} = 10$$