



Finding Greatest Common Factor

Name: _____

Determine the greatest common factor (GCF) of each set of numbers.

To find the GCF of 12 & 16, first write down the factors of each number.

Factors of 12 1, 2, 3, 4, 6, 12

Factors of 16 1, 2, 4, 8, 16

2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

1) 3 , 18

Factors of 3 _____, _____

Factors of 18 _____, _____, _____, _____, _____, _____

2) 22 , 8

Factors of 22 _____, _____, _____, _____

Factors of 8 _____, _____, _____, _____

3) 36 , 3

Factors of 36 _____, _____, _____, _____, _____, _____, _____, _____, _____

Factors of 3 _____, _____

4) 24 , 39

Factors of 24 _____, _____, _____, _____, _____, _____, _____, _____

Factors of 39 _____, _____, _____, _____

5) 30 , 8

Factors of 30 _____, _____, _____, _____, _____, _____, _____, _____

Factors of 8 _____, _____, _____, _____

6) 10 , 26

Factors of 10 _____, _____, _____, _____

Factors of 26 _____, _____, _____, _____

7) 36 , 14

Factors of 36 _____, _____, _____, _____, _____, _____, _____, _____, _____

Factors of 14 _____, _____, _____, _____

8) 30 , 20

Factors of 30 _____, _____, _____, _____, _____, _____, _____, _____

Factors of 20 _____, _____, _____, _____, _____, _____

9) 18 , 42

Factors of 18 _____, _____, _____, _____, _____, _____

Factors of 42 _____, _____, _____, _____, _____, _____, _____, _____

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



Determine the greatest common factor (GCF) of each set of numbers.

To find the GCF of 12 & 16, first write down the factors of each number.

Factors of 12 1, 2, 3, 4, 6, 12

Factors of 16 1, 2, 4, 8, 16

2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

1) 3 , 18

Factors of 3 1, 3

Factors of 18 1, 2, 3, 6, 9, 18

2) 22 , 8

Factors of 22 1, 2, 11, 22

Factors of 8 1, 2, 4, 8

3) 36 , 3

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

Factors of 3 1, 3

4) 24 , 39

Factors of 24 1, 2, 3, 4, 6, 8, 12, 24

Factors of 39 1, 3, 13, 39

5) 30 , 8

Factors of 30 1, 2, 3, 5, 6, 10, 15, 30

Factors of 8 1, 2, 4, 8

6) 10 , 26

Factors of 10 1, 2, 5, 10

Factors of 26 1, 2, 13, 26

7) 36 , 14

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

Factors of 14 1, 2, 7, 14

8) 30 , 20

Factors of 30 1, 2, 3, 5, 6, 10, 15, 30

Factors of 20 1, 2, 4, 5, 10, 20

9) 18 , 42

Factors of 18 1, 2, 3, 6, 9, 18

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

Answers

1. 3

2. 2

3. 3

4. 3

5. 2

6. 2

7. 2

8. 10

9. 6

**Determine the greatest common factor (GCF) of each set of numbers.****Answers**

To find the GCF of 12 & 16, first write down the factors of each number.

Factors of 12 1, 2, 3, 4, 6, 12

Factors of 16 1, 2, 4, 8, 16

2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

1) 6, 16

Factors of 6 _____, _____, _____, _____

Factors of 16 _____, _____, _____, _____, _____

2) 9, 36

Factors of 9 _____, _____, _____

Factors of 36 _____, _____, _____, _____, _____, _____, _____, _____, _____, _____

3) 30, 10

Factors of 30 _____, _____, _____, _____, _____, _____, _____, _____, _____

Factors of 10 _____, _____, _____, _____

4) 24, 16

Factors of 24 _____, _____, _____, _____, _____, _____, _____, _____, _____

Factors of 16 _____, _____, _____, _____, _____

5) 12, 33

Factors of 12 _____, _____, _____, _____, _____, _____

Factors of 33 _____, _____, _____, _____

6) 20, 10

Factors of 20 _____, _____, _____, _____, _____, _____

Factors of 10 _____, _____, _____, _____

7) 4, 24

Factors of 4 _____, _____, _____

Factors of 24 _____, _____, _____, _____, _____, _____, _____, _____

8) 24, 14

Factors of 24 _____, _____, _____, _____, _____, _____, _____, _____

Factors of 14 _____, _____, _____, _____

9) 45, 6

Factors of 45 _____, _____, _____, _____, _____, _____

Factors of 6 _____, _____, _____, _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____



Determine the greatest common factor (GCF) of each set of numbers.

To find the GCF of 12 & 16, first write down the factors of each number.

Factors of 12 1, 2, 3, 4, 6, 12

Factors of 16 1, 2, 4, 8, 16

2 & 4 are factors both 12 and 16 have in common, with 4 being the greatest. So 4 is the GCF.

1) 6, 16

Factors of 6 1, 2, 3, 6

Factors of 16 1, 2, 4, 8, 16

2) 9, 36

Factors of 9 1, 3, 9

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

3) 30, 10

Factors of 30 1, 2, 3, 5, 6, 10, 15, 30

Factors of 10 1, 2, 5, 10

4) 24, 16

Factors of 24 1, 2, 3, 4, 6, 8, 12, 24

Factors of 16 1, 2, 4, 8, 16

5) 12, 33

Factors of 12 1, 2, 3, 4, 6, 12

Factors of 33 1, 3, 11, 33

6) 20, 10

Factors of 20 1, 2, 4, 5, 10, 20

Factors of 10 1, 2, 5, 10

7) 4, 24

Factors of 4 1, 2, 4

Factors of 24 1, 2, 3, 4, 6, 8, 12, 24

8) 24, 14

Factors of 24 1, 2, 3, 4, 6, 8, 12, 24

Factors of 14 1, 2, 7, 14

9) 45, 6

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

Factors of 6 1, 2, 3, 6

Answers

1. 2

2. 9

3. 10

4. 8

5. 3

6. 10

7. 4

8. 2

9. 3



Finding Least Common Multiple

Name: _____

Find the least common multiple of both numbers.

Answers

To find the least common multiple one strategy is to list the multiples of the numbers.

4	4	8	12	16	20	24	28	32	36	40	44	48
6	6	12	18	24	30	36	42	48	54	60	66	72

Some of the multiples 4 and 6 have in common are: 12, 24, 36 & 48.

The common multiple that is least is 12.

- 1) 8 3 _____
 3 _____

 2) 12 10 _____
 10 _____

 3) 4 11 _____
 11 _____

 4) 5 2 _____
 2 _____

 5) 8 12 _____
 12 _____

 6) 4 10 _____
 10 _____

 7) 5 10 _____
 10 _____

 8) 8 5 _____
 5 _____

 9) 2 4 _____
 4 _____

 10) 9 12 _____
 12 _____

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____
 10. _____



Finding Least Common Multiple

Name: **Answer Key**

Find the least common multiple of both numbers.

Answers

To find the least common multiple one strategy is to list the multiples of the numbers.

4	<u>4</u>	<u>8</u>	<u>12</u>	<u>16</u>	<u>20</u>	<u>24</u>	<u>28</u>	<u>32</u>	<u>36</u>	<u>40</u>	<u>44</u>	<u>48</u>
6	<u>6</u>	<u>12</u>	<u>18</u>	<u>24</u>	<u>30</u>	<u>36</u>	<u>42</u>	<u>48</u>	<u>54</u>	<u>60</u>	<u>66</u>	<u>72</u>

Some of the multiples 4 and 6 have in common are: 12, 24, 36 & 48.

The common multiple that is least is 12.

1) 8 8 16 24 32 40 48 56 64
3 3 6 9 12 15 18 21 24

2) 12 12 24 36 48 60 72 84 96 108 120 132 144
10 10 20 30 40 50 60 70 80 90 100 110 120

3) 4 4 8 12 16 20 24 28 32 36 40 44
11 11 22 33 44 55 66 77 88 99 110 121

4) 5 5 10 15 20 25
2 2 4 6 8 10

5) 8 8 16 24 32 40 48 56 64 72 80 88 96
12 12 24 36 48 60 72 84 96 108 120 132 144

6) 4 4 8 12 16 20 24 28 32 36 40
10 10 20 30 40 50 60 70 80 90 100

7) 5 5 10 15 20 25 30 35 40 45 50
10 10 20 30 40 50 60 70 80 90 100

8) 8 8 16 24 32 40 48 56 64
5 5 10 15 20 25 30 35 40

9) 2 2 4 6 8
4 4 8 12 16

10) 9 9 18 27 36 45 54 63 72 81 90 99 108
12 12 24 36 48 60 72 84 96 108 120 132 144

1. **24**

2. **60**

3. **44**

4. **10**

5. **24**

6. **20**

7. **10**

8. **40**

9. **4**

10. **36**



Finding Least Common Multiple

Name: _____

Find the least common multiple of both numbers.

Answers

To find the least common multiple one strategy is to list the multiples of the numbers.

4	<u>4</u>	<u>8</u>	<u>12</u>	<u>16</u>	<u>20</u>	<u>24</u>	<u>28</u>	<u>32</u>	<u>36</u>	<u>40</u>	<u>44</u>	<u>48</u>
6	<u>6</u>	<u>12</u>	<u>18</u>	<u>24</u>	<u>30</u>	<u>36</u>	<u>42</u>	<u>48</u>	<u>54</u>	<u>60</u>	<u>66</u>	<u>72</u>

Some of the multiples 4 and 6 have in common are: 12, 24, 36 & 48.

The common multiple that is least is 12.

1) 3 _____
 8 _____

2) 6 _____
 5 _____

3) 11 _____
 6 _____

4) 5 _____
 9 _____

5) 11 _____
 3 _____

6) 11 _____
 10 _____

7) 3 _____
 12 _____

8) 2 _____
 10 _____

9) 5 _____
 10 _____

10) 9 _____
 2 _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____



Finding Least Common Multiple

Name: **Answer Key**

Find the least common multiple of both numbers.

Answers

To find the least common multiple one strategy is to list the multiples of the numbers.

4	<u>4</u>	<u>8</u>	<u>12</u>	<u>16</u>	<u>20</u>	<u>24</u>	<u>28</u>	<u>32</u>	<u>36</u>	<u>40</u>	<u>44</u>	<u>48</u>
6	<u>6</u>	<u>12</u>	<u>18</u>	<u>24</u>	<u>30</u>	<u>36</u>	<u>42</u>	<u>48</u>	<u>54</u>	<u>60</u>	<u>66</u>	<u>72</u>

Some of the multiples 4 and 6 have in common are: 12, 24, 36 & 48.

The common multiple that is least is 12.

1) $\begin{array}{r} 3 \\ 8 \end{array}$ $\begin{array}{r} 3 \\ 8 \end{array}$ $\begin{array}{r} 6 \\ 16 \end{array}$ $\begin{array}{r} 9 \\ 24 \end{array}$ $\begin{array}{r} 12 \\ 32 \end{array}$ $\begin{array}{r} 15 \\ 40 \end{array}$ $\begin{array}{r} 18 \\ 48 \end{array}$ $\begin{array}{r} 21 \\ 56 \end{array}$ $\begin{array}{r} 24 \\ 64 \end{array}$

2) $\begin{array}{r} 6 \\ 5 \end{array}$ $\begin{array}{r} 6 \\ 5 \end{array}$ $\begin{array}{r} 12 \\ 10 \end{array}$ $\begin{array}{r} 18 \\ 15 \end{array}$ $\begin{array}{r} 24 \\ 20 \end{array}$ $\begin{array}{r} 30 \\ 25 \end{array}$ $\begin{array}{r} 36 \\ 30 \end{array}$

3) $\begin{array}{r} 11 \\ 6 \end{array}$ $\begin{array}{r} 11 \\ 6 \end{array}$ $\begin{array}{r} 22 \\ 12 \end{array}$ $\begin{array}{r} 33 \\ 18 \end{array}$ $\begin{array}{r} 44 \\ 24 \end{array}$ $\begin{array}{r} 55 \\ 30 \end{array}$ $\begin{array}{r} 66 \\ 36 \end{array}$ $\begin{array}{r} 77 \\ 42 \end{array}$ $\begin{array}{r} 88 \\ 48 \end{array}$ $\begin{array}{r} 99 \\ 54 \end{array}$ $\begin{array}{r} 110 \\ 60 \end{array}$ $\begin{array}{r} 121 \\ 66 \end{array}$

4) $\begin{array}{r} 5 \\ 9 \end{array}$ $\begin{array}{r} 5 \\ 9 \end{array}$ $\begin{array}{r} 10 \\ 18 \end{array}$ $\begin{array}{r} 15 \\ 27 \end{array}$ $\begin{array}{r} 20 \\ 36 \end{array}$ $\begin{array}{r} 25 \\ 45 \end{array}$ $\begin{array}{r} 30 \\ 54 \end{array}$ $\begin{array}{r} 35 \\ 63 \end{array}$ $\begin{array}{r} 40 \\ 72 \end{array}$ $\begin{array}{r} 45 \\ 81 \end{array}$

5) $\begin{array}{r} 11 \\ 3 \end{array}$ $\begin{array}{r} 11 \\ 3 \end{array}$ $\begin{array}{r} 22 \\ 6 \end{array}$ $\begin{array}{r} 33 \\ 9 \end{array}$ $\begin{array}{r} 44 \\ 12 \end{array}$ $\begin{array}{r} 55 \\ 15 \end{array}$ $\begin{array}{r} 66 \\ 18 \end{array}$ $\begin{array}{r} 77 \\ 21 \end{array}$ $\begin{array}{r} 88 \\ 24 \end{array}$ $\begin{array}{r} 99 \\ 27 \end{array}$ $\begin{array}{r} 110 \\ 30 \end{array}$ $\begin{array}{r} 121 \\ 33 \end{array}$

6) $\begin{array}{r} 11 \\ 10 \end{array}$ $\begin{array}{r} 11 \\ 10 \end{array}$ $\begin{array}{r} 22 \\ 20 \end{array}$ $\begin{array}{r} 33 \\ 30 \end{array}$ $\begin{array}{r} 44 \\ 40 \end{array}$ $\begin{array}{r} 55 \\ 50 \end{array}$ $\begin{array}{r} 66 \\ 60 \end{array}$ $\begin{array}{r} 77 \\ 70 \end{array}$ $\begin{array}{r} 88 \\ 80 \end{array}$ $\begin{array}{r} 99 \\ 90 \end{array}$ $\begin{array}{r} 110 \\ 100 \end{array}$ $\begin{array}{r} 121 \\ 110 \end{array}$

7) $\begin{array}{r} 3 \\ 12 \end{array}$ $\begin{array}{r} 3 \\ 12 \end{array}$ $\begin{array}{r} 6 \\ 24 \end{array}$ $\begin{array}{r} 9 \\ 36 \end{array}$ $\begin{array}{r} 12 \\ 48 \end{array}$ $\begin{array}{r} 15 \\ 60 \end{array}$ $\begin{array}{r} 18 \\ 72 \end{array}$ $\begin{array}{r} 21 \\ 84 \end{array}$ $\begin{array}{r} 24 \\ 96 \end{array}$ $\begin{array}{r} 27 \\ 108 \end{array}$ $\begin{array}{r} 30 \\ 120 \end{array}$ $\begin{array}{r} 33 \\ 132 \end{array}$ $\begin{array}{r} 36 \\ 144 \end{array}$

8) $\begin{array}{r} 2 \\ 10 \end{array}$ $\begin{array}{r} 2 \\ 10 \end{array}$ $\begin{array}{r} 4 \\ 20 \end{array}$ $\begin{array}{r} 6 \\ 30 \end{array}$ $\begin{array}{r} 8 \\ 40 \end{array}$ $\begin{array}{r} 10 \\ 50 \end{array}$ $\begin{array}{r} 12 \\ 60 \end{array}$ $\begin{array}{r} 14 \\ 70 \end{array}$ $\begin{array}{r} 16 \\ 80 \end{array}$ $\begin{array}{r} 18 \\ 90 \end{array}$ $\begin{array}{r} 20 \\ 100 \end{array}$

9) $\begin{array}{r} 5 \\ 10 \end{array}$ $\begin{array}{r} 5 \\ 10 \end{array}$ $\begin{array}{r} 10 \\ 20 \end{array}$ $\begin{array}{r} 15 \\ 30 \end{array}$ $\begin{array}{r} 20 \\ 40 \end{array}$ $\begin{array}{r} 25 \\ 50 \end{array}$ $\begin{array}{r} 30 \\ 60 \end{array}$ $\begin{array}{r} 35 \\ 70 \end{array}$ $\begin{array}{r} 40 \\ 80 \end{array}$ $\begin{array}{r} 45 \\ 90 \end{array}$ $\begin{array}{r} 50 \\ 100 \end{array}$

10) $\begin{array}{r} 9 \\ 2 \end{array}$ $\begin{array}{r} 9 \\ 2 \end{array}$ $\begin{array}{r} 18 \\ 4 \end{array}$ $\begin{array}{r} 27 \\ 6 \end{array}$ $\begin{array}{r} 36 \\ 8 \end{array}$ $\begin{array}{r} 45 \\ 10 \end{array}$ $\begin{array}{r} 54 \\ 12 \end{array}$ $\begin{array}{r} 63 \\ 14 \end{array}$ $\begin{array}{r} 72 \\ 16 \end{array}$ $\begin{array}{r} 81 \\ 18 \end{array}$

1. **24**

2. **30**

3. **66**

4. **45**

5. **33**

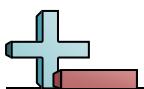
6. **110**

7. **12**

8. **10**

9. **10**

10. **18**



Finding Prime Factors

Name: _____

Find the prime factors for each number.

1) $47 =$ _____

2) $59 =$ _____

3) $98 =$ _____

4) $27 =$ _____

5) $99 =$ _____

6) $75 =$ _____

7) $59 =$ _____

8) $93 =$ _____

9) $51 =$ _____

10) $62 =$ _____

11) $22 =$ _____

12) $95 =$ _____

13) $94 =$ _____

14) $86 =$ _____

15) $25 =$ _____

16) $60 =$ _____

17) $89 =$ _____

18) $52 =$ _____

19) $8 =$ _____

20) $11 =$ _____

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

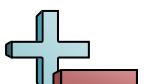
17. _____

18. _____

19. _____

20. _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0



Find the prime factors for each number.

1) $47 = \underline{47}$

2) $59 = \underline{59}$

3) $98 = \underline{2 \times 7 \times 7}$

4) $27 = \underline{3 \times 3 \times 3}$

5) $99 = \underline{3 \times 3 \times 11}$

6) $75 = \underline{3 \times 5 \times 5}$

7) $59 = \underline{59}$

8) $93 = \underline{3 \times 31}$

9) $51 = \underline{3 \times 17}$

10) $62 = \underline{2 \times 31}$

11) $22 = \underline{2 \times 11}$

12) $95 = \underline{5 \times 19}$

13) $94 = \underline{2 \times 47}$

14) $86 = \underline{2 \times 43}$

15) $25 = \underline{5 \times 5}$

16) $60 = \underline{2 \times 2 \times 3 \times 5}$

17) $89 = \underline{89}$

18) $52 = \underline{2 \times 2 \times 13}$

19) $8 = \underline{2 \times 2 \times 2}$

20) $11 = \underline{11}$

Answers

1. **47**

2. **59**

3. **$2 \times 7 \times 7$**

4. **$3 \times 3 \times 3$**

5. **$3 \times 3 \times 11$**

6. **$3 \times 5 \times 5$**

7. **59**

8. **3×31**

9. **3×17**

10. **2×31**

11. **2×11**

12. **5×19**

13. **2×47**

14. **2×43**

15. **5×5**

16. **$2 \times 2 \times 3 \times 5$**

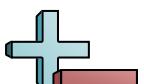
17. **89**

18. **$2 \times 2 \times 13$**

19. **$2 \times 2 \times 2$**

20. **11**

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0



Finding Prime Factors

Name: _____

Find the prime factors for each number.

1) $49 =$ _____

2) $98 =$ _____

3) $75 =$ _____

4) $87 =$ _____

5) $45 =$ _____

6) $24 =$ _____

7) $49 =$ _____

8) $72 =$ _____

9) $39 =$ _____

10) $62 =$ _____

11) $11 =$ _____

12) $62 =$ _____

13) $9 =$ _____

14) $94 =$ _____

15) $31 =$ _____

16) $34 =$ _____

17) $26 =$ _____

18) $95 =$ _____

19) $86 =$ _____

20) $58 =$ _____

Answers

1) _____

2) _____

3) _____

4) _____

5) _____

6) _____

7) _____

8) _____

9) _____

10) _____

11) _____

12) _____

13) _____

14) _____

15) _____

16) _____

17) _____

18) _____

19) _____

20) _____

1-10	95	90	85	80	75	70	65	60	55	50
11-20	45	40	35	30	25	20	15	10	5	0



Find the prime factors for each number.

1) $49 = \underline{7 \times 7}$

2) $98 = \underline{2 \times 7 \times 7}$

3) $75 = \underline{3 \times 5 \times 5}$

4) $87 = \underline{3 \times 29}$

5) $45 = \underline{3 \times 3 \times 5}$

6) $24 = \underline{2 \times 2 \times 2 \times 3}$

7) $49 = \underline{7 \times 7}$

8) $72 = \underline{2 \times 2 \times 2 \times 3 \times 3}$

9) $39 = \underline{3 \times 13}$

10) $62 = \underline{2 \times 31}$

11) $11 = \underline{11}$

12) $62 = \underline{2 \times 31}$

13) $9 = \underline{3 \times 3}$

14) $94 = \underline{2 \times 47}$

15) $31 = \underline{31}$

16) $34 = \underline{2 \times 17}$

17) $26 = \underline{2 \times 13}$

18) $95 = \underline{5 \times 19}$

19) $86 = \underline{2 \times 43}$

20) $58 = \underline{2 \times 29}$

Answers

1. $\underline{\quad 7 \times 7 \quad}$

2. $\underline{\quad 2 \times 7 \times 7 \quad}$

3. $\underline{\quad 3 \times 5 \times 5 \quad}$

4. $\underline{\quad 3 \times 29 \quad}$

5. $\underline{\quad 3 \times 3 \times 5 \quad}$

6. $\underline{\quad 2 \times 2 \times 2 \times 3 \quad}$

7. $\underline{\quad 7 \times 7 \quad}$

8. $\underline{\quad 2 \times 2 \times 2 \times 3 \times 3 \quad}$

9. $\underline{\quad 3 \times 13 \quad}$

10. $\underline{\quad 2 \times 31 \quad}$

11. $\underline{\quad 11 \quad}$

12. $\underline{\quad 2 \times 31 \quad}$

13. $\underline{\quad 3 \times 3 \quad}$

14. $\underline{\quad 2 \times 47 \quad}$

15. $\underline{\quad 31 \quad}$

16. $\underline{\quad 2 \times 17 \quad}$

17. $\underline{\quad 2 \times 13 \quad}$

18. $\underline{\quad 5 \times 19 \quad}$

19. $\underline{\quad 2 \times 43 \quad}$

20. $\underline{\quad 2 \times 29 \quad}$