THIRD SPACE LEARNING

GCF and LCM Worksheet

Number and Quantity

Grades 6 to 8

Skill Questions

Name: .....

Date: .....

1 What is the least common multiple of 8 and 12?

Answer

2 Determine the least common multiple of 14 and 21.

Answer

3 Find the least common multiple of 5 and 10.

Answer

4 Calculate the least common multiple of 9 and 15.

Answer

5 Determine the least common multiple of 16 and 24.

Answer

6 Determine the greatest common factor of 18 and 24.

Answer

7 Calculate the greatest common factor of 42 and 56.

Answer

8 Find the greatest common factor of 28 and 35.

Answer

9 Determine the greatest common factor of 15 and 20.

Answer

10 Find the greatest common factor of 36 and 48.

Answer

Applied Questions

11 The school band has three sections that perform together. Section A plays a piece every 12 minutes, Section B plays every 15 minutes, and Section C plays every 18 minutes. If they all start playing together, after how many minutes will they play their pieces simultaneously again?

Answer

12 Lisa is organizing her bookshelf with three series of books. Series X has a pattern of repeating every 8 days, Series Y repeats every 10 days, and Series Z repeats every 14 days. If Lisa reads the first book of each series today, after how many days will she find herself reading the first book of all three series on the same day again?

Answer

13 A school is organizing a field trip for three different classes. Class A has 24 students, Class B has 30 students, and Class C has 36 students. The school wants to arrange these students into equal-sized groups with no students left over. Determine the largest number of students that can be in each group.

Answer

14 A gardener is planning to plant rows of flowers in her garden. She has 18 red flowers, 24 yellow flowers, and 30 blue flowers. To create a visually appealing pattern, she wants to plant an equal number of each color in each row. What is the greatest number of flowers she can plant in each row to achieve this arrangement?

Answer

15 The school is organizing a book fair and needs to arrange books into different-sized stacks for display. There are three book series: Series X has 20 books, Series Y has 30 books, and Series Z has 45 books. To create equally sized stacks with no books left over, determine the greatest number of books in each series. How many books will be in each stack for the most efficient arrangement, and how many stacks of each series will be created?

Answer

Answers

Question number	Question	Answers	Standard
1	What is the least common multiple of 8 and 12?	24	6.NS.B.4
2	Determine the least common multiple of 14 and 21.	42	6.NS.B.4
3	Find the least common multiple of 5 and 10.	10	6.NS.B.4
4	Calculate the least common multiple of 9 and 15.	45	6.NS.B.4
5	Determine the least common multiple of 16 and 24.	48	6.NS.B.4
6	Determine the greatest common factor of 18 and 24.	6	6.NS.B.4
7	Calculate the greatest common factor of 42 and 56.	14	6.NS.B.4
8	Find the greatest common factor of 28 and 35.	7	6.NS.B.4
9	Determine the greatest common factor of 15 and 20.	5	6.NS.B.4
10	Find the greatest common factor of 36 and 48.	12	6.NS.B.4

Question number	Question	Answers	Standard
11	The school band has three sections that perform together. Section A plays a piece every 12 minutes, Section B plays every 15 minutes, and Section C plays every 18 minutes. If they all start playing together, after how many minutes will they play their pieces simultaneously again?	The least common multiple of 12, 15, and 18 is 180 minutes. The three sections of the school band will play their pieces simultaneously again after 180 minutes.	6.NS.B.4
12	Lisa is organizing her bookshelf with three series of books. Series X has a pattern of repeating every 8 days, Series Y repeats every 10 days, and Series Z repeats every 14 days. If Lisa reads the first book of each series today, after how many days will she find herself reading the first book of all three series on the same day again?	The least common multiple of 8, 10, and 14 is 280 days. Lisa will find herself reading the first book of all three series on the same day again after 280 days.	6.NS.B.4
13	A school is organizing a field trip for three different classes. Class A has 24 students, Class B has 30 students, and Class C has 36 students. The school wants to arrange these students into equal-sized groups with no students left over. Determine the largest number of students that can be in each group.	The greatest common factor of 24, 30, and 36 is 6. Therefore, the largest number of students that can be in each group is 6.	6.NS.B.4

Question number	Question	Answers	Standard
14	A gardener is planning to plant rows of flowers in her garden. She has 18 red flowers, 24 yellow flowers, and 30 blue flowers. To create a visually appealing pattern, she wants to plant an equal number of each color in each row. What is the greatest number of flowers she can plant in each row to achieve this arrangement?	The greatest common factor of 18, 24, and 30 is 6. Therefore, the gardener can plant the greatest number of flowers in each row by arranging 6 flowers of each color.	6.NS.B.4
15	The school is organizing a book fair and needs to arrange books into different-sized stacks for display. There are three book series: Series X has 20 books, Series Y has 30 books, and Series Z has 45 books. To create equally sized stacks with no books left over, determine the greatest number of books in each series. How many books will be in each stack for the most efficient arrangement, and how many stacks of each series will be created?	The greatest common factor of 20, 30 and 45 is 5. The most efficient arrangement is to create stacks of 5 books each. For series X, there will be 4 stacks. For series Y, there will be 6 stacks and for series Z there will be 9 stacks.	6.NS.B.4

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- Differentiated instruction for each student
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