

Musical Factors: Adventures with the Band Brothers

Math

Grade 4

Music Theme

□ Help your musical friends solve their factor adventures by finding all the factors of each number!

NAME _____

DATE _____

SCORE _____ / 8

1

Melody the Songbird is arranging 12 concert seats in equal rows for the big band performance. How many different ways can she arrange the seats so that each row has the same number of chairs? List all the factors of 12.

2

Rhythm the Drummer is packing 18 drumsticks into identical bundles for his band's world tour. What are all the possible numbers of bundles he could make with no drumsticks left over? Find all factors of 18.

3

Harmony the Pianist needs to divide 24 sheet music pages equally among her students for the orchestra rehearsal. In how many different ways can she distribute the pages with none left over? List all factors of 24.

4

Treble the Trumpeter has 15 golden trumpets to display in a rectangular grid at the Music Museum. What are all the possible rectangular arrangements he can make? Find all factors of 15.

5

Bass the Bassist is creating concert ticket packages. He has 20 tickets and wants to make equal packs with no tickets remaining. How many different sized packages can he create? List all factors of 20.

6

Melody and Rhythm are forming a duet ensemble. They want to invite 16 band members to their concert venue and seat them in equal rows. What are all the possible row arrangements? Find all factors of 16.

7

Harmony is organizing 30 musical instruments for the grand orchestra finale. She needs to arrange them into equal groups for different sections. In how many ways can she group the instruments? List all factors of 30.

8

Treble the Trumpeter discovered 14 rare vintage records in the music archive. He wants to display them in equal stacks with no records left over. What are all the possible stack arrangements? Find all factors of 14.

Answer Key

Math

Grade 4

For Parents and Teachers

1

Melody the Songbird is arranging 12 concert seats in equal rows for the big band performance. How many different ways can she arrange the seats so that each row has the same number of chairs? List all the factors of 12.

ANSWER

1, 2, 3, 4, 6, 12 (6 factors)

2

Rhythm the Drummer is packing 18 drumsticks into identical bundles for his band's world tour. What are all the possible numbers of bundles he could make with no drumsticks left over? Find all factors of 18.

ANSWER

1, 2, 3, 6, 9, 18 (6 factors)

3

Harmony the Pianist needs to divide 24 sheet music pages equally among her students for the orchestra rehearsal. In how many different ways can she distribute the pages with none left over? List all factors of 24.

ANSWER

1, 2, 3, 4, 6, 8, 12, 24 (8 factors)

4

Treble the Trumpeter has 15 golden trumpets to display in a rectangular grid at the Music Museum. What are all the possible rectangular arrangements he can make? Find all factors of 15.

ANSWER

1, 3, 5, 15 (4 factors)

5

Bass the Bassist is creating concert ticket packages. He has 20 tickets and wants to make equal packs with no tickets remaining. How many different sized packages can he create? List all factors of 20.

ANSWER

1, 2, 4, 5, 10, 20 (6 factors)

6

Melody and Rhythm are forming a duet ensemble. They want to invite 16 band members to their concert venue and seat them in equal rows. What are all the possible row arrangements? Find all factors of 16.

ANSWER

1, 2, 4, 8, 16 (5 factors)

7

Harmony is organizing 30 musical instruments for the grand orchestra finale. She needs to arrange them into equal groups for different sections. In how many ways can she group the instruments? List all factors of 30.

ANSWER

1, 2, 3, 5, 6, 10, 15, 30 (8 factors)

8

Treble the Trumpeter discovered 14 rare vintage records in the music archive. He wants to display them in equal stacks with no records left over. What are all the possible stack arrangements? Find all factors of 14.

ANSWER

1, 2, 7, 14 (4 factors)

