Fairy Tale Factor Adventures: Help Storybook Heroes Find All the Factors!

Math · Grade 4 · Fairy Tales Theme

Help your favorite Fairy Tales characters solve magical factor mysteries by finding all the factors for each enchanted number!

NAME _____

DATE _____

SCORE _____ / 8

1

Cinderella is arranging magic pumpkins for the royal ball and needs to display them in equal rows. She has 12 pumpkins total. What are all the different ways she can arrange them in rectangular patterns? List all the factors of 12.

2

Snow White is distributing 18 golden apples equally among the seven dwarfs and their forest friends. To find out how many different group sizes she can make with no apples left over, list all the factors of 18.

3

Rapunzel is braiding her magical hair into 20 equal strands to create enchanted jump ropes for the village children. How many different length combinations can she make? Find all the factors of 20.

4

The Big Bad Wolf is organizing 24 wooden chairs in the Three Little Pigs' community center into equal rows for a feast. What are all the different rectangular seating arrangements possible? List all the factors of 24.

5

Hansel and Gretel found 15 pieces of candy in the gingerbread house and want to share them equally with their forest animal friends. How many different friend groups can they divide the candy among? Find all the factors of 15.

6

Sleeping Beauty is decorating the castle with 16 enchanted rose bouquets. She wants to place them in equal groups throughout the different rooms. What are all the possible groupings? List all the factors of 16.

7

Jack from Jack and the Beanstalk harvested 28 magic beans and wants to plant them in equal rows in his garden to grow more beanstalks. How many different row arrangements can he create? Find all the factors of 28.

8

Pinocchio's nose grows 30 inches after telling 30 fibs, and Gepetto wants to mark equal intervals on a measurement chart to track improvement. What are all the different spacing options for the marks? List all the factors of 30.

Answer Key

1

Cinderella is arranging magic pumpkins for the royal ball and needs to display them in equal rows. She has 12 pumpkins total. What are all the different ways she can arrange them in rectangular patterns? List all the factors of 12.

ANSWER

1, 2, 3, 4, 6, 12

2

Snow White is distributing 18 golden apples equally among the seven dwarfs and their forest friends. To find out how many different group sizes she can make with no apples left over, list all the factors of 18.

ANSWER

1, 2, 3, 6, 9, 18

3

Rapunzel is braiding her magical hair into 20 equal strands to create enchanted jump ropes for the village children. How many different length combinations can she make? Find all the factors of 20.

ANSWER

1, 2, 4, 5, 10, 20

4

The Big Bad Wolf is organizing 24 wooden chairs in the Three Little Pigs' community center into equal rows for a feast. What are all the different rectangular seating arrangements possible? List all the factors of 24.

ANSWER

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

5

Hansel and Gretel found 15 pieces of candy in the gingerbread house and want to share them equally with their forest animal friends. How many different friend groups can they divide the candy among? Find all the factors of 15.

ANSWER

1, 3, 5, 15

6

Sleeping Beauty is decorating the castle with 16 enchanted rose bouquets. She wants to place them in equal groups throughout the different rooms. What are all the possible groupings? List all the factors of 16.

ANSWER

1, 2, 4, 8, 16

7

Jack from Jack and the Beanstalk harvested 28 magic beans and wants to plant them in equal rows in his garden to grow more beanstalks. How many different row arrangements can he create? Find all the factors of 28.

ANSWER

1, 2, 4, 7, 14, 28

8

Pinocchio's nose grows 30 inches after telling 30 fibs, and Gepetto wants to mark equal intervals on a measurement chart to track improvement. What are all the different spacing options for the marks? List all the factors of 30.

ANSWER

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