

Arctic Explorer's Factor Quest: Help Polar Animals Find Their Way Home

Math

Grade 4

Arctic Theme

Help our Arctic friends discover factors by solving their icy adventures!

NAME _____

DATE _____

SCORE _____ / 8

1

Benny the Polar Bear is organizing fish into equal groups for his hibernation pantry. He has 24 fish and wants to arrange them into groups where each group has the same number of fish. List all the factors of 24 so Benny can decide how many different ways he can organize his food.

2

Snowball the Arctic Fox is building an ice den with a rectangular floor. She wants the floor to have an area of 18 square meters. What are all the possible lengths and widths she could use? (List all factor pairs of 18.)

3

Pippa the Penguin is arranging her friends in rows for a big Arctic parade. She has 16 penguins total and wants to arrange them in equal rows with no penguins left out. What are all the factors of 16?

4

Walrus Winston is dividing 20 pieces of kelp equally among his family members for dinner. How many different group sizes could he make so that everyone gets the same amount with no kelp left over? (Find all factors of 20.)

5

Shelly the Seal is creating a mosaic ice art display with 12 colored ice blocks. She wants to arrange them in a rectangle. What are all the different rectangular arrangements she could make? (List all factor pairs of 12.)

6

Freddy the Arctic Hare is hopping across the tundra and wants to mark his path with 15 ice markers, spacing them equally. How many different ways can he divide the 15 markers into equal groups? (Find all factors of 15.)

7

Glacia the Snowy Owl is sorting 28 snowflakes she collected into jars for her Arctic museum. What are all the different numbers of jars she could use if each jar has the same number of snowflakes? (Find all factors of 28.)

8

Captain Kodiak Bear is planning an expedition with 14 Arctic explorers and wants to split them into equal teams with no one left behind. How many different team sizes could he create? (List all factors of 14.)

Answer Key

Math

Grade 4

For Parents and Teachers

1

Benny the Polar Bear is organizing fish into equal groups for his hibernation pantry. He has 24 fish and wants to arrange them into groups where each group has the same number of fish. List all the factors of 24 so Benny can decide how many different ways he can organize his food.

ANSWER

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

2

Snowball the Arctic Fox is building an ice den with a rectangular floor. She wants the floor to have an area of 18 square meters. What are all the possible lengths and widths she could use? (List all factor pairs of 18.)

ANSWER

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

3

Pippa the Penguin is arranging her friends in rows for a big Arctic parade. She has 16 penguins total and wants to arrange them in equal rows with no penguins left out. What are all the factors of 16?

ANSWER

1, 2, 4, 8, 16

4

Walrus Winston is dividing 20 pieces of kelp equally among his family members for dinner. How many different group sizes could he make so that everyone gets the same amount with no kelp left over? (Find all factors of 20.)

ANSWER

1, 2, 4, 5, 10, 20

5

Shelly the Seal is creating a mosaic ice art display with 12 colored ice blocks. She wants to arrange them in a rectangle. What are all the different rectangular arrangements she could make? (List all factor pairs of 12.)

ANSWER

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

6

Freddy the Arctic Hare is hopping across the tundra and wants to mark his path with 15 ice markers, spacing them equally. How many different ways can he divide the 15 markers into equal groups? (Find all factors of 15.)

ANSWER

1, 3, 5, 15

7

Glacia the Snowy Owl is sorting 28 snowflakes she collected into jars for her Arctic museum. What are all the different numbers of jars she could use if each jar has the same number of snowflakes? (Find all factors of 28.)

ANSWER

1, 2, 4, 7, 14, 28

8

Captain Kodiak Bear is planning an expedition with 14 Arctic explorers and wants to split them into equal teams with no one left behind. How many different team sizes could he create? (List all factors of 14.)

ANSWER

1, 2, 7, 14