Chef's Factor Quest: Adventures in the Magical Kitchen

Math　**Grade 4**　**Cooking Theme**

🍳 **Help Chef Charlie and friends discover all the factors hidden throughout their cooking adventures!**

NAME

DATE

SCORE

_____ / 8

1

Chef Charlie is arranging 12 chocolate chip cookies on plates for the bakery display. He wants to make equal groups with no cookies left over. What are all the different ways he can arrange the cookies into equal groups? List all the factors of 12.

2

Baker Betty is decorating 18 cupcakes for a birthday party. She wants to put them into boxes with the same number of cupcakes in each box, with none left over. What are all the factors of 18 that could help her organize the cupcakes?

3

Sous Chef Sam is organizing a cooking competition with 24 teams of young chefs. He needs to divide them into equal groups for different cooking stations with no teams left over. What are all the factors of 24?

4

Kitchen Manager Maya is arranging 16 jars of homemade jam on shelves. Each shelf must have the same number of jars with none left over. How many different ways can she arrange the jars? (Find all factors of 16.)

5

Pastry Chef Pierre baked 20 fresh croissants for the morning rush. He wants to pack them into bags with equal amounts and no croissants left over. What are all the possible factors of 20 that would help him decide how many bags to make?

6

Head Chef Oliver is planning a dinner party and needs to seat exactly 15 guests. He wants to arrange tables so each table has the same number of guests with no one left standing. What are all the factors of 15 that show him his seating options?

7

Cook Carmen is preparing 28 servings of soup for a cooking class. She wants to divide them equally among serving bowls with no soup wasted. What are all the factors of 28?

8

Food Scientist Franco is testing a new recipe that makes exactly 14 portions of grilled cheese sandwiches. He needs to divide them equally among tasting trays with nothing left over. What are all the factors of 14 that could work?

Answer Key

1

Chef Charlie is arranging 12 chocolate chip cookies on plates for the bakery display. He wants to make equal groups with no cookies left over. What are all the different ways he can arrange the cookies into equal groups? List all the factors of 12.

ANSWER

1, 2, 3, 4, 6, 12

2

Baker Betty is decorating 18 cupcakes for a birthday party. She wants to put them into boxes with the same number of cupcakes in each box, with none left over. What are all the factors of 18 that could help her organize the cupcakes?

ANSWER

1, 2, 3, 6, 9, 18

3

Sous Chef Sam is organizing a cooking competition with 24 teams of young chefs. He needs to divide them into equal groups for different cooking stations with no teams left over. What are all the factors of 24?

ANSWER

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

4

Kitchen Manager Maya is arranging 16 jars of homemade jam on shelves. Each shelf must have the same number of jars with none left over. How many different ways can she arrange the jars? (Find all factors of 16.)

ANSWER

1, 2, 4, 8, 16

5

Pastry Chef Pierre baked 20 fresh croissants for the morning rush. He wants to pack them into bags with equal amounts and no croissants left over. What are all the possible factors of 20 that would help him decide how many bags to make?

ANSWER

1, 2, 4, 5, 10, 20

6

Head Chef Oliver is planning a dinner party and needs to seat exactly 15 guests. He wants to arrange tables so each table has the same number of guests with no one left standing. What are all the factors of 15 that show him his seating options?

ANSWER

1, 3, 5, 15

7

Cook Carmen is preparing 28 servings of soup for a cooking class. She wants to divide them equally among serving bowls with no soup wasted. What are all the factors of 28?

ANSWER

1, 2, 4, 7, 14, 28

8

Food Scientist Franco is testing a new recipe that makes exactly 14 portions of grilled cheese sandwiches. He needs to divide them equally among tasting trays with nothing left over. What are all the factors of 14 that could work?

ANSWER

1, 2, 7, 14