Robot Factory: Finding Factors in Robot City

Math | Grade 4 | Robots Theme

Help the robots of Robot City solve their factory problems by finding all the factors they need!

NAME _____ DATE _____ SCORE _____ / 8

1

Rodney Copperbottom is building a rectangular display in the Robot City museum with 12 shiny robot parts. He wants to arrange them in equal rows without any parts left over. List all the factors of 12 so Rodney knows every possible way to arrange his display.

2

Bigweld's factory needs to pack 18 brand new robots into boxes for shipping. Each box must contain the same number of robots with none left behind. What are all the factors of 18 that will help the factory workers pack these robots?

3

Cappy, the robot manager, is organizing a robot parade with 16 dancing bots. She wants to divide them into equal groups for different dance formations. What are all the factors of 16 that Cappy can use?

4

Ratchet discovers a treasure chest containing 20 golden gears in the old robot warehouse. He wants to distribute them equally among his robot friends with nothing left over. List all the factors of 20 so Ratchet can decide how many friends to share with.

5

Fender, a jazz-loving robot, is creating a robot band with 24 musical bots. He needs to arrange them into equal rows for a synchronized performance. What are all the factors of 24 that will work for Fender's musical arrangement?

6

The Robot City power plant generates 15 energy cores every day. The plant manager wants to pack them into crates with equal amounts in each crate and no cores wasted. What are all the factors of 15?

7

Aunt Fanny is baking metal cookies for 30 hungry robots at the Robot City carnival. She wants to divide them into equal platters for different robot booths with no cookies crumbled or left over. List all the factors of 30.

8

Piper, the young robot inventor, collected 14 mechanical butterflies from around Robot City. She wants to arrange them into equal groups for her science project display. What are all the factors of 14 that Piper can use for her arrangement?

Answer Key

Math | Grade 4 | For Parents and Teachers

1

Rodney Copperbottom is building a rectangular display in the Robot City museum with 12 shiny robot parts. He wants to arrange them in equal rows without any parts left over. List all the factors of 12 so Rodney knows every possible way to arrange his display.

ANSWER

1, 2, 3, 4, 6, 12

2

Bigweld's factory needs to pack 18 brand new robots into boxes for shipping. Each box must contain the same number of robots with none left behind. What are all the factors of 18 that will help the factory workers pack these robots?

ANSWER

1, 2, 3, 6, 9, 18

3

Cappy, the robot manager, is organizing a robot parade with 16 dancing bots. She wants to divide them into equal groups for different dance formations. What are all the factors of 16 that Cappy can use?

ANSWER

1, 2, 4, 8, 16

4

Ratchet discovers a treasure chest containing 20 golden gears in the old robot warehouse. He wants to distribute them equally among his robot friends with nothing left over. List all the factors of 20 so Ratchet can decide how many friends to share with.

ANSWER

1, 2, 4, 5, 10, 20

5

Fender, a jazz-loving robot, is creating a robot band with 24 musical bots. He needs to arrange them into equal rows for a synchronized performance. What are all the factors of 24 that will work for Fender's musical arrangement?

ANSWER

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

6

The Robot City power plant generates 15 energy cores every day. The plant manager wants to pack them into crates with equal amounts in each crate and no cores wasted. What are all the factors of 15?

ANSWER

1, 3, 5, 15

7

Aunt Fanny is baking metal cookies for 30 hungry robots at the Robot City carnival. She wants to divide them into equal platters for different robot booths with no cookies crumbled or left over. List all the factors of 30.

ANSWER

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

8

Piper, the young robot inventor, collected 14 mechanical butterflies from around Robot City. She wants to arrange them into equal groups for her science project display. What are all the factors of 14 that Piper can use for her arrangement?

ANSWER

1, 2, 7, 14