Deep Sea Factor Explorers: An Underwater Adventure

Math · Grade 4 · Underwater Theme

🌊 Help our underwater friends solve their factoring challenges by finding all the factors in each deep-sea scenario!

NAME _____

DATE _____

SCORE _____ / 8

1

Coral the sea turtle is organizing a treasure hunt for her 12 friends. She wants to divide them into equal groups to search different coral reef zones. What are all the different ways Coral can arrange her friends into equal groups? List all the factors of 12.

2

Bubbles the dolphin found 18 shiny pearls in an underwater cave. He wants to create necklaces with the same number of pearls in each one, with no pearls left over. What are all the possible numbers of pearls he could use per necklace? Find all factors of 18.

3

Squirt the octopus is arranging 24 sea stars on the ocean floor to create a beautiful pattern. He wants each row to have the same number of stars with no stars remaining. What are all the different row lengths Squirt could use? List all factors of 24.

4

Marina the mermaid collected 16 seashells during her adventure through the kelp forest. She wants to display them in boxes with an equal number of shells in each box. How many different ways can Marina arrange her seashells? Find all factors of 16.

5

Captain Fin the shark discovered 20 pieces of sunken treasure scattered across the ocean floor. He wants to distribute them equally among his crew members with no treasure left behind. What are all the possible crew sizes that would work? List all factors of 20.

6

Pearl the seahorse is planting 15 sea anemones in her underwater garden. She wants to arrange them in rows with the same number of anemones in each row. What are all the different row arrangements Pearl could make? Find all factors of 15.

7

Splash the sea lion found 30 colorful pebbles on the beach floor. He wants to create equal piles of pebbles to share with his friends with nothing left over. What are all the different pile sizes Splash could make? List all factors of 30.

8

Sandy the starfish discovered a mysterious underwater chamber with 14 glowing crystals. She wants to place them on shelves with the same number of crystals on each shelf and no crystals remaining. How many different shelf arrangements can Sandy create? Find all factors of 14.

Answer Key

1

Coral the sea turtle is organizing a treasure hunt for her 12 friends. She wants to divide them into equal groups to search different coral reef zones. What are all the different ways Coral can arrange her friends into equal groups? List all the factors of 12.

ANSWER

1, 2, 3, 4, 6, 12

2

Bubbles the dolphin found 18 shiny pearls in an underwater cave. He wants to create necklaces with the same number of pearls in each one, with no pearls left over. What are all the possible numbers of pearls he could use per necklace? Find all factors of 18.

ANSWER

1, 2, 3, 6, 9, 18

3

Squirt the octopus is arranging 24 sea stars on the ocean floor to create a beautiful pattern. He wants each row to have the same number of stars with no stars remaining. What are all the different row lengths Squirt could use? List all factors of 24.

ANSWER

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

4

Marina the mermaid collected 16 seashells during her adventure through the kelp forest. She wants to display them in boxes with an equal number of shells in each box. How many different ways can Marina arrange her seashells? Find all factors of 16.

ANSWER

1, 2, 4, 8, 16

5

Captain Fin the shark discovered 20 pieces of sunken treasure scattered across the ocean floor. He wants to distribute them equally among his crew members with no treasure left behind. What are all the possible crew sizes that would work? List all factors of 20.

ANSWER

1, 2, 4, 5, 10, 20

6

Pearl the seahorse is planting 15 sea anemones in her underwater garden. She wants to arrange them in rows with the same number of anemones in each row. What are all the different row arrangements Pearl could make? Find all factors of 15.

ANSWER

1, 3, 5, 15

7

Splash the sea lion found 30 colorful pebbles on the beach floor. He wants to create equal piles of pebbles to share with his friends with nothing left over. What are all the different pile sizes Splash could make? List all factors of 30.

ANSWER

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

8

Sandy the starfish discovered a mysterious underwater chamber with 14 glowing crystals. She wants to place them on shelves with the same number of crystals on each shelf and no crystals remaining. How many different shelf arrangements can Sandy create? Find all factors of 14.

ANSWER

1, 2, 7, 14