

Dragons: Quest for the Factors of Berk

Math

Grade 4

Dragons Theme

Help Hiccup and the dragon riders solve these factorful adventures across the Island of Berk!

NAME _____

DATE _____

SCORE _____ / 8

1

Hiccup is organizing a dragon training academy and needs to arrange 12 students into equal groups for synchronized flight lessons. What are ALL the different ways he can divide the 12 students into equal groups? (List all factors of 12)

2

Toothless has collected 18 pieces of metal scrap to use for building new armor. He wants to create identical repair kits with the same number of pieces in each kit, with no pieces left over. How many different kits could he make, and what would be the possible sizes? (Find all factors of 18)

3

Astrid is preparing for the Dragon Games and needs to arrange 24 practice cones in equal rows for an obstacle course. She wants no cones left over. What are all the ways she can arrange the cones in equal rows? (List all factors of 24)

4

Fishlegs discovered an ancient dragon egg that hatches every 15 days during the lunar cycle. What are all the different time intervals (in days) at which something special happens to this magical egg? (Find all factors of 15)

5

Snotlout's dragon Hookfang found 20 golden dragon scales hidden in a cave. He wants to divide them equally among his closest dragon-riding friends with nothing left over. List all the different groups he could make. (Find all factors of 20)

6

The dragon riders need to prepare 16 fire-resistant shields for the upcoming Berserker raid. They want to package them into identical sets with equal numbers of shields per set. What are all the possible ways to package the shields? (List all factors of 16)

7

Meatlug is carrying exactly 30 fish as gifts to distribute equally among the dragon nests on the island, with no fish wasted. What are all the different group sizes that could receive equal shares of fish? (Find all factors of 30)

8

Stormfly has laid 28 dragon eggs that need to be arranged in equal clusters for protective incubation. List all the possible cluster sizes that would use all eggs with none left over. (Find all factors of 28)

Answer Key

Math

Grade 4

For Parents and Teachers

1

Hiccup is organizing a dragon training academy and needs to arrange 12 students into equal groups for synchronized flight lessons. What are ALL the different ways he can divide the 12 students into equal groups? (List all factors of 12)

ANSWER

1, 2, 3, 4, 6, 12

2

Toothless has collected 18 pieces of metal scrap to use for building new armor. He wants to create identical repair kits with the same number of pieces in each kit, with no pieces left over. How many different kits could he make, and what would be the possible sizes? (Find all factors of 18)

ANSWER

1, 2, 3, 6, 9, 18

3

Astrid is preparing for the Dragon Games and needs to arrange 24 practice cones in equal rows for an obstacle course. She wants no cones left over. What are all the ways she can arrange the cones in equal rows? (List all factors of 24)

ANSWER

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

4

Fishlegs discovered an ancient dragon egg that hatches every 15 days during the lunar cycle. What are all the different time intervals (in days) at which something special happens to this magical egg? (Find all factors of 15)

ANSWER

1, 3, 5, 15

5

Snotlout's dragon Hookfang found 20 golden dragon scales hidden in a cave. He wants to divide them equally among his closest dragon-riding friends with nothing left over. List all the different groups he could make. (Find all factors of 20)

ANSWER

1, 2, 4, 5, 10, 20

6

The dragon riders need to prepare 16 fire-resistant shields for the upcoming Berserker raid. They want to package them into identical sets with equal numbers of shields per set. What are all the possible ways to package the shields? (List all factors of 16)

ANSWER

1, 2, 4, 8, 16

7

Meatlug is carrying exactly 30 fish as gifts to distribute equally among the dragon nests on the island, with no fish wasted. What are all the different group sizes that could receive equal shares of fish? (Find all factors of 30)

ANSWER

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

8

Stormfly has laid 28 dragon eggs that need to be arranged in equal clusters for protective incubation. List all the possible cluster sizes that would use all eggs with none left over. (Find all factors of 28)

ANSWER

1, 2, 4, 7, 14, 28