LESSON MAKER PRO

Find the Biggest Fit

Find common factors and use them to make equal groups.

GRADE 6 · 6.NOS.B.4.a

6.NOS.B.4.a "Identify the greatest common factor of two whole numbers within 100."

NAME _____ DATE _____

THE BIG IDEA

A common factor divides two numbers with no remainder. To find the greatest common factor, list the factors of each number and choose the largest one on both lists.

WORKED EXAMPLE

Find the greatest common factor of 15 and 25.

1. Factors of 15: 1, 3, 5, 15.
2. Factors of 25: 1, 5, 25.
3. The common factors are 1 and 5.

Answer: GCF = 5

PRACTICE 6 problems

1 Find the GCF of 24 and 36.

ANSWER _____

2 Find the GCF of 35 and 50.

ANSWER _____

3 Find the GCF of 28 and 42.

ANSWER _____

4 Find the GCF of 32 and 48.

ANSWER _____

5 Find the GCF of 27 and 45.

ANSWER _____

6 Find the GCF of 49 and 64.

ANSWER _____

APPLY IT Show your work

1 You have 40 game cards and 56 stickers. You want to make as many identical giveaway packs as possible, using everything. How many packs can you make, and what goes in each pack?

WORK SPACE

ANSWER _____

2 A bracelet club has 54 blue beads and 72 green beads. Each bracelet must have the same number of blue beads and the same number of green beads, with none left over. What is the greatest number of bracelets the club can make, and how many beads of each color go on one bracelet?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says the GCF of 66 and 90 is 3. Is the student correct? Find the GCF and explain why no larger common factor is possible.

WORK SPACE AND ANSWER

ANSWER KEY

Find the Biggest Fit

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the GCF of 24 and 36.	**12**
2	Find the GCF of 35 and 50.	**5**
3	Find the GCF of 28 and 42.	**14**
4	Find the GCF of 32 and 48.	**16**
5	Find the GCF of 27 and 45.	**9**
6	Find the GCF of 49 and 64.	**1**

PART 2 · APPLY IT

1. **8 packs, with 5 game cards and 7 stickers in each pack.** The GCF of 40 and 56 is 8. Divide each amount by 8 to find what goes in each pack.
2. **18 bracelets, with 3 blue beads and 4 green beads on each bracelet.** The GCF of 54 and 72 is 18. Divide 54 and 72 by 18 to find the number of beads of each color.

CHALLENGE

No. The GCF is 6. The common factors of 66 and 90 are 1, 2, 3, and 6, so none is larger than 6.

Accept any correct method for finding each GCF. For the challenge, accept a complete list of common factors or another valid explanation that rules out larger common factors.