LESSON MAKER PRO

Multiple Detectives

Check whether a number belongs in a multiplication pattern.

GRADE 4 · 4.NOS.C.8.b

4.NOS.C.8.b "Determine whether a given whole number in the range of 1–100 is a multiple of a one-digit number."

NAME _____ DATE _____

HOW TO CHECK

A number is a multiple of a one-digit number if you can make it by multiplying that one-digit number by a whole number. You can also divide to check. If there is no remainder, the number is a multiple.

WORKED EXAMPLE

Is 42 a multiple of 7?

1. Divide 42 by 7.
2. 42 / 7 = 6 with no remainder.
3. Check: 7 x 6 = 42.

Answer: Yes, 42 is a multiple of 7.

PRACTICE 6 problems

1 Is 24 a multiple of 6?

ANSWER _____

2 Is 31 a multiple of 5?

ANSWER _____

3 Is 56 a multiple of 8?

ANSWER _____

4 Is 73 a multiple of 9?

ANSWER _____

5 Is 81 a multiple of 3?

ANSWER _____

6 Is 90 a multiple of 4?

ANSWER _____

APPLY IT Show your work

1 Mia has 48 stickers. She puts 6 stickers on each page. Can she put all the stickers on full pages with none left over? Is 48 a multiple of 6?

WORK SPACE

ANSWER _____

2 Eight friends want to share 53 game tokens equally. Can they do it with none left over? Is 53 a multiple of 8?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Is 72 a multiple of both 6 and 8? Show a multiplication fact for each number to explain your answer.

WORK SPACE AND ANSWER

ANSWER KEY

Multiple Detectives

GRADE 4 · 4.NOS.C.8.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Is 24 a multiple of 6?	**Yes, 24 is a multiple of 6.**
2	Is 31 a multiple of 5?	**No, 31 is not a multiple of 5.**
3	Is 56 a multiple of 8?	**Yes, 56 is a multiple of 8.**
4	Is 73 a multiple of 9?	**No, 73 is not a multiple of 9.**
5	Is 81 a multiple of 3?	**Yes, 81 is a multiple of 3.**
6	Is 90 a multiple of 4?	**No, 90 is not a multiple of 4.**

PART 2 · APPLY IT

1. **Yes. She can fill 8 pages, and 48 is a multiple of 6.** 48 / 6 = 8 with no remainder.
2. **No. They will have 5 tokens left over, and 53 is not a multiple of 8.** 8 x 6 = 48, and 53 - 48 = 5.

CHALLENGE

Yes. 6 x 12 = 72, and 8 x 9 = 72.

Accept correct multiplication facts or division with no remainder to support a yes answer. For a no answer, accept a nearby product or a nonzero remainder.