LESSON MAKER PRO

First Match

Find when two counting patterns meet.

GRADE 6 · 6.NOS.B.4.b

6.NOS.B.4.b "Identify the least common multiple of two whole numbers within 12."

NAME _____ DATE _____

FIND THE FIRST MATCH

A multiple is a number you get by counting by a given number. To find the least common multiple (LCM) of two numbers, list their positive multiples. The first number in both lists is the LCM.

WORKED EXAMPLE

Find the LCM of 3 and 7.

1. List multiples of 3: 3, 6, 9, 12, 15, 18, 21.
2. List multiples of 7: 7, 14, 21.
3. The first number in both lists is 21.

Answer: 21

PRACTICE 6 problems

1 Find the LCM of 4 and 6.

ANSWER _____

2 Find the LCM of 5 and 10.

ANSWER _____

3 Find the LCM of 8 and 12.

ANSWER _____

4 Find the LCM of 2 and 11.

ANSWER _____

5 Find the LCM of 6 and 10.

ANSWER _____

6 Find the LCM of 5 and 11.

ANSWER _____

APPLY IT Show your work

1 Two video clips begin playing at the same time on separate screens. One restarts every 4 minutes, and the other restarts every 5 minutes. In how many minutes will both restart together for the first time?

WORK SPACE

ANSWER _____

2 At a game event, a bonus drops every 6 minutes and a new round starts every 8 minutes. Both happen now. In how many minutes will they next happen at the same time?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student says the LCM of 4 and 10 is 40 because 40 is a multiple of both numbers. Explain why 40 is not the LCM, and give the LCM.

WORK SPACE AND ANSWER

ANSWER KEY

First Match

GRADE 6 · 6.NOS.B.4.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the LCM of 4 and 6.	**12**
2	Find the LCM of 5 and 10.	**10**
3	Find the LCM of 8 and 12.	**24**
4	Find the LCM of 2 and 11.	**22**
5	Find the LCM of 6 and 10.	**30**
6	Find the LCM of 5 and 11.	**55**

PART 2 · APPLY IT

1. **20 minutes** The first common multiple of 4 and 5 is 20.
2. **24 minutes** The first common multiple of 6 and 8 is 24.

CHALLENGE

The positive multiples of 10 up to 20 are 10 and 20, and only 20 is a multiple of 4. So the LCM is 20, not 40.

Accept any correct method that identifies the least positive common multiple. For the challenge, accept an explanation that identifies 20 as a smaller common multiple than 40 and rules out 10.