LESSON MAKER PRO

Make Remainders Matter

Choose an answer that fits the situation.

GRADE 5 · 5.N.2.3

5.N.2.3 "Recognize that remainders can be represented in a variety of ways, including a whole number, fraction, or decimal. Determine the most meaningful form of a remainder based on the context of the problem."

NAME _____ DATE _____

WHAT DOES THE REMAINDER MEAN?

After you divide, think about what the remainder represents. It might count items left over, mean you need one more group, or become a fraction or decimal when something can be shared.

WORKED EXAMPLE

You cut 86 meters of cord into 15 equal pieces. How long is each piece?

1. 15 x 5 = 75, so each piece gets 5 meters.
2. 86 - 75 = 11 meters remain.
3. Share the remaining 11 meters among 15 pieces. Each piece gets another 11/15 meter.

Answer: 5 11/15 meters per piece

PRACTICE 6 problems

1 A club packs 74 pencils into boxes of 6. How many pencils are left after filling as many boxes as possible?

ANSWER _____

2 There are 128 students going to a tournament. Each van holds up to 14 students. How many vans are needed?

ANSWER _____

3 You cut 78 meters of ribbon into 12 equal lengths. How long is each length?

ANSWER _____

4 A team splits $63 equally among 12 players. How many dollars does each player receive? Write the amount as a decimal.

ANSWER _____

5 A baker puts 141 cookies into bags that hold 16 cookies each. How many full bags can the baker fill, and how many cookies remain?

ANSWER _____

6 A juice maker pours 51 liters of juice equally into 25 bottles. How many liters go in each bottle? Explain why no juice must be left over.

ANSWER _____

APPLY IT Show your work

1 At a school game day, 234 students want to play. Each game station can host up to 16 students. What is the least number of stations the school needs?

WORK SPACE

ANSWER _____

2 A gaming team wins $138 and shares it equally among 24 players. How much money does each player get?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A school shares 158 stickers equally among 12 teams. Stickers cannot be cut. How many stickers does each team get, and how many remain? Now imagine the school shares 158 meters of ribbon equally among the same teams. How many meters does each team get? Explain why the remainder is handled differently.

WORK SPACE AND ANSWER

ANSWER KEY

Make Remainders Matter

GRADE 5 · 5.N.2.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A club packs 74 pencils into boxes of 6. How many pencils are left after filling as many boxes as possible?	**2 pencils**
2	There are 128 students going to a tournament. Each van holds up to 14 students. How many vans are needed?	**10 vans**
3	You cut 78 meters of ribbon into 12 equal lengths. How long is each length?	**6 1/2 meters**
4	A team splits $63 equally among 12 players. How many dollars does each player receive? Write the amount as a decimal.	**$5.25**
5	A baker puts 141 cookies into bags that hold 16 cookies each. How many full bags can the baker fill, and how many cookies remain?	**8 full bags and 13 cookies remaining**
6	A juice maker pours 51 liters of juice equally into 25 bottles. How many liters go in each bottle? Explain why no juice must be left over.	**2.04 liters per bottle. Juice can be divided, so the remaining liter can be shared among the bottles.**

PART 2 · APPLY IT

1. **15 stations** Fourteen stations hold 224 students, leaving 10. One more station is needed.
2. **$5.75** Divide 138 by 24. Each player receives $5, and the remaining $18 gives each player another $0.75.

CHALLENGE

Each team gets 13 stickers, with 2 stickers left. Each team gets 13 1/6 meters of ribbon because the remaining 2 meters can be cut and shared, but the stickers cannot.

Accept equivalent fractions or decimals for shared measurements when they are exact. For the challenge, students should explain that the 2 leftover meters become 2/12, or 1/6, meter per team.