

Luna's Space Adventure

Grade 4 · Long division · 4.NBT.B.6

Name _____

Date _____



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Divide Divide, multiply, subtract, bring down. Write any remainder with R.

1

$$9 \overline{)905}$$

2

$$4 \overline{)438}$$

3

$$3 \overline{)265}$$

4

$$3 \overline{)957}$$

5

$$7 \overline{)803}$$

6

$$9 \overline{)645}$$

What does the remainder mean?

- ① Luna puts 122 space snacks into boxes of 7. How many space snacks are left over after filling as many boxes as possible?

.....

_____ space snacks

- ② 144 children are going on a trip. Each van holds 7 children. How many vans are needed so everyone can go?

.....

_____ vans

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ANSWER KEY



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Divide Divide, multiply, subtract, bring down. Write any remainder with R.

1
$$\begin{array}{r} 100 \text{ R}5 \\ 9 \overline{)905} \end{array}$$

check: $100 \times 9 + 5 = 905$

2
$$\begin{array}{r} 109 \text{ R}2 \\ 4 \overline{)438} \end{array}$$

check: $109 \times 4 + 2 = 438$

3
$$\begin{array}{r} 88 \text{ R}1 \\ 3 \overline{)265} \end{array}$$

check: $88 \times 3 + 1 = 265$

4
$$\begin{array}{r} 319 \\ 3 \overline{)957} \end{array}$$

check: $319 \times 3 = 957$

5
$$\begin{array}{r} 114 \text{ R}5 \\ 7 \overline{)803} \end{array}$$

check: $114 \times 7 + 5 = 803$

6
$$\begin{array}{r} 71 \text{ R}6 \\ 9 \overline{)645} \end{array}$$

check: $71 \times 9 + 6 = 645$

What does the remainder mean?

- ① Luna puts 122 space snacks into boxes of 7. How many space snacks are left over after filling as many boxes as possible?

$17 \times 7 = 119$, then $122 - 119 = 3$

3 space snacks

- ② 144 children are going on a trip. Each van holds 7 children. How many vans are needed so everyone can go?

$20 \times 7 = 140$, then $20 + 1 = 21$

21 vans

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GUIDE

① What this sheet practises

Long division: dividing numbers up to four digits by a one-digit number, with remainders.

② A problem from the sheet, worked out

Divide Divide, multiply, subtract, bring down. Write any remainder with R.

$$\begin{array}{r} 100 R5 \\ 9 \overline{) 905} \end{array}$$

check: $100 \times 9 + 5 = 905$

$$\begin{array}{r} 109 R2 \\ 4 \overline{) 438} \end{array}$$

check: $109 \times 4 + 2 = 438$

$$\begin{array}{r} 88 R1 \\ 3 \overline{) 265} \end{array}$$

check: $88 \times 3 + 1 = 265$

How: Work one place at a time from the left: divide, multiply, subtract, bring down the next digit, repeat. Check: quotient $\times$ divisor + remainder = the starting number.

③ Words to know

dividend the number being divided

divisor the number you divide by

quotient the answer to a division

remainder what's left over

④ Watch for

- A remainder as big as the divisor, which means one more fits.
- Skipping a 0 in the quotient when a place is too small to divide.
- Bringing down two digits at once.

⑤ Where it fits

BEFORE

3.OA.C.7

Multiply and divide within 100, and know the times tables from memory.

THIS SHEET

4.NBT.B.6

Divide up to four-digit numbers by one-digit numbers, with remainders.

NEXT

5.NBT.B.6

Divide up to four-digit numbers by two-digit divisors.

⑥ Helping at home

Share a pile of dried beans or pasta equally into a few cups and count what's left: that's the remainder.