

INTERPRETING REMINDERS

When solving story problems that involve division, you may need to **interpret**, or figure out how to use, a remainder. You have to interpret the remainder in a way that makes sense for the story. There are different ways to interpret a remainder –

round up (the quotient)

When you **round up**, you include the remainder with the quotient and increase the quotient by 1 so that everyone or everything is included. Use in situations where you can't leave anyone or anything out.

13 are girls going camping. The tents can fit up to five girls. How many tents are needed for the girls?

$$\begin{array}{ccccccc} 13 & \div & 5 & = & 2 & & R\ 3 \\ \text{(girls)} & & \text{(per tent)} & & \text{(full tents)} & & \text{(girls left)} \end{array}$$

The last 3 girls need a tent, so you must have 3 tents.

ignore it

When you **ignore it**, you drop the remainder and just use the quotient as your answer. Use in situations where you can't easily split up the remainder and including it doesn't make sense in the story.

Bill has \$20 to buy model plane kits. Each kit costs \$6. How many kits is he able to buy?

$$\begin{array}{ccccccc} \$20 & \div & \$6 & = & 3 & & R\ \$2 \\ \text{(starting money)} & & \text{(cost per kit)} & & \text{(kits)} & & \text{(money left)} \end{array}$$

He has \$2 left but can't afford another or buy just part of a kit.

use it

When you use the remainder, you split it up, make the remainder your answer, or use the remainder to find the answer.

SPLIT IT!

Steve has 9 candy bars to share with three other boys. How much candy can each of the four boys get?

$$\begin{array}{ccccccc} 9 & \div & 4 & = & 2 & & R\ 1 \\ \text{(candy)} & & \text{(boys)} & & \text{(per boy)} & & \text{(candy left)} \end{array}$$

The last candy bar can be cut into 4 pieces to share, so each boy can get $2\frac{3}{4}$ candy bars.

IT'S YOUR ANSWER!

Steve has 9 candy bars to share with three other boys. How many candy bars will be left when they are shared?

$$\begin{array}{ccccccc} 9 & \div & 4 & = & 2 & & R\ 1 \\ \text{(candy)} & & \text{(boys)} & & \text{(per boy)} & & \text{(candy left)} \end{array}$$

There is 1 candy bar left – the remainder **is** the answer.

ADD TO IT!

Steve has 9 candy bars to share with three other boys. How many candy bars does Steve have to buy so all the boys have the same number?

$$\begin{array}{ccccccc} 9 & \div & 4 & = & 2 & & R\ 1 \\ \text{(candy)} & & \text{(boys)} & & \text{(per boy)} & & \text{(candy left)} \end{array}$$

There is 1 candy bar left but 4 boys, so you need 3 more candy bars.