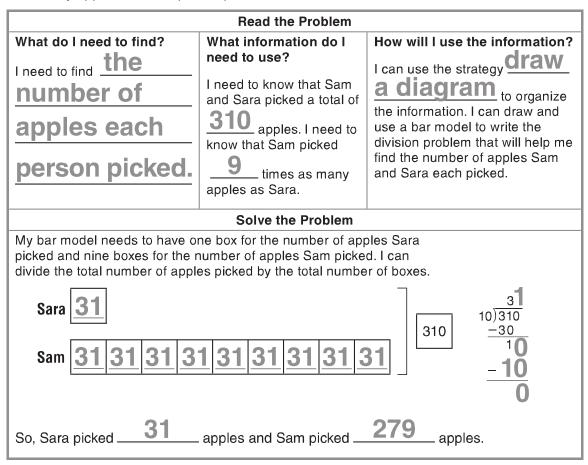# Problem Solving • Division

Sara and Sam picked apples over the weekend. Sam picked nine times as many apples as Sara. Together, they picked 310 apples. How many apples did each person pick?

Read the Problem		
What do I need to find? I need to find **the number of apples each person picked.**	**What information do I need to use?** I need to know that Sam and Sara picked a total of **310** apples. I need to know that Sam picked **9** times as many apples as Sara.	**How will I use the information?** I can use the strategy **draw a diagram** to organize the information. I can draw and use a bar model to write the division problem that will help me find the number of apples Sam and Sara each picked.

Solve the Problem
My bar model needs to have one box for the number of apples Sara picked and nine boxes for the number of apples Sam picked. I can divide the total number of apples picked by the total number of boxes.

Sara $\boxed{31}$

Sam $\boxed{31}\boxed{31}\boxed{31}\boxed{31}\boxed{31}\boxed{31}\boxed{31}\boxed{31}\boxed{31}$ $\boxed{310}$

$$
\begin{array}{r}
31 \\
10)\overline{310} \\
-30 \\
\hline
10 \\
-10 \\
\hline
0
\end{array}
$$

So, Sara picked **31** apples and Sam picked **279** apples.

Solve each problem. To help, draw a bar model on a separate sheet of paper.

1. Kai picked 11 times as many blueberries as Nico. Together, they picked 936 blueberries. How many blueberries did each boy pick?

2. Jen wrote 10 times as many pages of a school report as Tom. They wrote 396 pages altogether. How many pages did each student write?

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