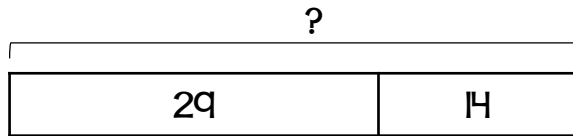# Bar Model Representations
for Drawing Operations

Bar models are an excellent way to draw an operation. The placement of the question mark in the drawing is a key piece. It represents the answer to the operation (the sum, the difference, the product, the quotient).
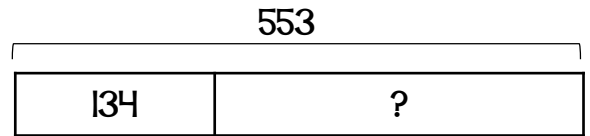
Addition

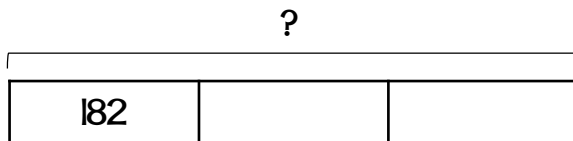We know the parts. We are finding the whole: $29 + 14$

?	
29	14

Subtraction

We know the whole and one of the parts. We are finding the other part: $553 - 134$

553

134	?

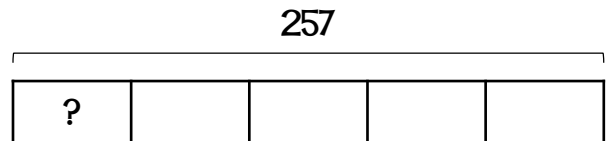## Multiplication

We know one part and the number of parts (the group size and the number of groups). We are finding the whole: 3×182

?

182		

Division

We know the whole and the number of parts. We are finding the size of one part: $257 \div 5$

257

?				

Percent of a number

We know the whole. We are finding a part of the whole that is equivalent to the given percentage of the whole: 28% of 240

0%	25%	50%	75%	100%
? 28% of 240				

| 0 | 60 | 120 | 180 | 240 |