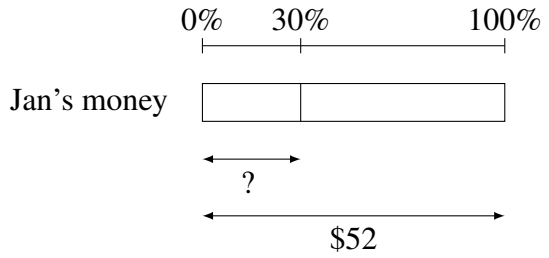
Jan had \$52. She spent 30% of it. How much money did she spend?

Setup.

(1) What will your bar represent?
Ans: All of Jan's money.
(2) What will you label your bar?
Ans: "Jan's money".
(3) Where will you place the amount \$52?
Ans: Under the bar with a bracket the full length of the bar.
(4) What counts as 100%?
Ans: All of Jan's money.
(5) Where will you place the amount 100%?
Ans: Above the right end of the bar representing Jan's money.
(6) Where will you place the amount 30%?
Ans: About a third of the way from the left end of the bar.
(7) Where will you place a question mark?
Ans: Under the bar with a bracket to about the 30% distance.



Reasoning

(1) What is the key correspondence between dollars and percent?
Ans: 100% corresponds to \$52.
(2) What does the question mark equal?
Ans: 30% of \$52.

$$\begin{aligned} 100\% &\longrightarrow \$52 \\ 1\% &\longrightarrow \frac{\$52}{100} \\ 30\% &\longrightarrow 30 \times \frac{\$52}{100} \\ &= \$15.60 \end{aligned}$$

OR

$$\begin{aligned} 30\% \text{ of } \$52 &= \frac{30}{100} \times \$52 \\ &= \$15.60 \end{aligned}$$

Answer

Ian spent \$15.60.

[1] Bob saved $810. This is 90% of Carl's savings. Find Carl's savings.

(1) What will one bar represent?
Ans:

(2) What will you label this bar?
Ans:

(3) What will the other bar represent?
Ans:

(4) What will you label this bar?
Ans:

(5) Where will you place the amount $810?
Ans:

(6) What counts as 100%?
Ans:

(7) Where will you place the amount 100%?
Ans:

(8) Where will you place the amount 90%?
Ans:

(9) Where will you place a question mark?
Ans:

Be sure to show a complete solution that includes setup, reasoning, and answer.

[1] Bob saved $810. This is 90% of Carl's savings. Find Carl's savings.

[2] During a sale, the price of a book was reduced by 10%. It sold for $36. Find the usual cost of the book.

(1) What will one bar represent?
Ans:

(2) What will you label this bar?
Ans:

(3) What will the other bar represent?
Ans:

(4) What will you label this bar?
Ans:

(5) Where will you place the amount $36?
Ans:

(6) What counts as 100%?
Ans:

(7) Where will you place the amount 100%?
Ans:

(8) Where will you place the amount 10%?
Ans:

(9) Where will you place a question mark?
Ans:

Be sure to show a complete solution that includes setup, reasoning, and answer.

[2] During a sale, the price of a book was reduced by 10%. It sold for $36. Find the usual cost of the book.

[3] The number of children in the chess club increased by 20% to 180. Find the number of children in the club before the increase.

(1) What will one bar represent?
Ans:

(2) What will you label this bar?
Ans:

(3) What will the other bar represent?
Ans:

(4) What will you label this bar?
Ans:

(5) Where will you place the amount 180 children?
Ans:

(6) What counts as 100%?
Ans:

(7) Where will you place the amount 100%?
Ans:

(8) Where will you place the amount 20%?
Ans:

(9) Where will you place a question mark?
Ans:

Be sure to show a complete solution that includes setup, reasoning, and answer.

[3] The number of children in the chess club increased by 20% to 180. Find the number of children in the club before the increase.

[4] Alice saved $66 in June. She saved 10% more in June than in May. How much did she save in May?

(1) What will one bar represent?
Ans:

(2) What will you label this bar?
Ans:

(3) What will the other bar represent?
Ans:

(4) What will you label this bar?
Ans:

(5) Where will you place the amount $66?
Ans:

(6) What counts as 100%?
Ans:

(7) Where will you place the amount 100%?
Ans:

(8) Where will you place the amount 10%?
Ans:

(9) Where will you place a question mark?
Ans:

Be sure to show a complete solution that includes setup, reasoning, and answer.

[4] Alice saved $66 in June. She saved 10% more in June than in May. How much did she save in May?