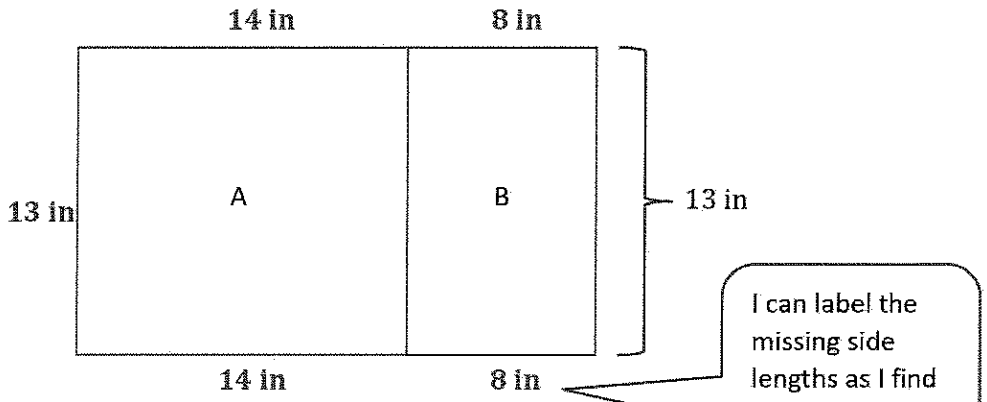
G5-M6-Lesson 23

In the diagram, the length of Figure B is $\frac{4}{7}$ the length of Figure A. Figure A has an area of 182 in^2. Find the perimeter of the entire figure.



I can find the length of Figure A by dividing the area by the width.

Figure A:

$\text{Area} = \text{length} \times \text{width}$

$182 = \_\_\_ \times 13$

$182 \div 13 = 14$

The length of Figure A is 14 inches.

Now that I know the length of Figure A, I can use it to find the length of Figure B.

Figure B:

$\frac{4}{7}$ *of* 14 *inches*

$\frac{4}{7} \times 14$

$= \frac{4 \times 14}{7}$

$= \frac{56}{7}$

$= 8$

The length of Figure B is 8 inches.

I can find the perimeter of the entire figure by adding up all of the sides.

Entire Figure:

$14 + 8 + 13 + 8 + 14 + 13 = 70$

The perimeter of the entire figure is 70 inches.