

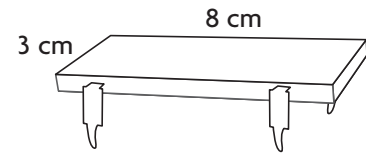
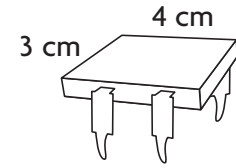
Problem Solving Strategy

Find a Pattern

You can find patterns to solve long problems quickly.

Read the following problem.

Kyle has several different computer chips. Some of his computer chips are twice as long as others. He wants to know how the area changes as the length of the computer chips are doubled. How do the areas change?



- Underline what you are asked to find.
- What strategy can you use to solve the problem?

3. Complete.

	Width	Length	Area
Computer chip A	2	2	_____
Computer chip B	2	4	_____

	Width	Length	Area
Computer chip C	3	4	_____
Computer chip D	3	8	_____

	Width	Length	Area
Computer chip E	4	4	_____
Computer chip F	4	8	_____

	Width	Length	Area
Computer chip G	6	4	_____
Computer chip H	6	8	_____

4. Use *find a pattern* and solve.

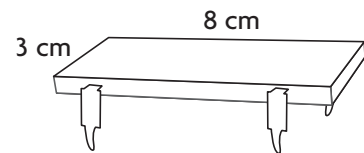
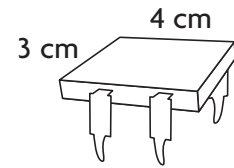
Problem Solving Strategy

Find a Pattern

You can find patterns to solve long problems quickly.

Read the following problem.

Kyle has several different computer chips. Some of his computer chips are twice as long as others. He wants to know how the area changes as the length of the computer chips are doubled. How do the areas change?



- Underline what you are asked to find.
- What strategy can you use to solve the problem?

Possible answer: You can find a pattern to solve the problem.

- Complete.

	Width	Length	Area
Computer chip A	2	2	4 _____
Computer chip B	2	4	8 _____

	Width	Length	Area
Computer chip C	3	4	12 _____
Computer chip D	3	8	24 _____

	Width	Length	Area
Computer chip E	4	4	16 _____
Computer chip F	4	8	32 _____

	Width	Length	Area
Computer chip G	6	4	24 _____
Computer chip H	6	8	48 _____

- Use *find a pattern* and solve.

Possible answer: The areas change from 4 to 8,

12 to 24, 16 to 32, and 24 to 48.

So, as the length doubles,

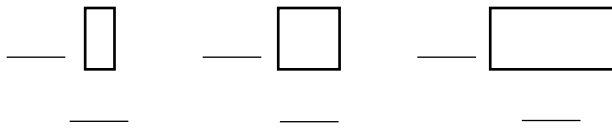
the area also doubles.

Problem Solving Strategy

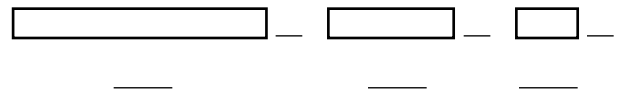
Find a Pattern

What if? Use the figures below to give examples that agree with your answers to the “What If” question.

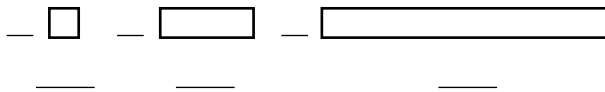
1. **What if** the width of a rectangle was doubled? What would happen to the area of the rectangle?



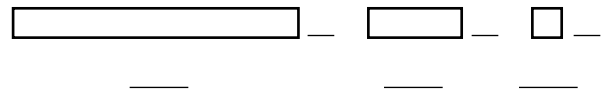
2. **What if** the width of a rectangle was divided by 2? What would happen to the area of the rectangle?



3. **What if** the width of a rectangle was tripled? What would happen to the area of the rectangle?



4. **What if** the width of a rectangle was divided by 3? What would happen to the area of the rectangle?



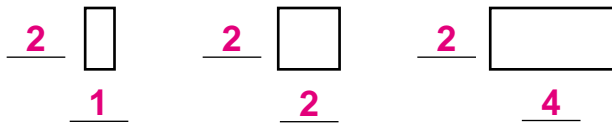
5. What do you think would happen to the area of a rectangle whose width is multiplied by 4? divided by 4?

Problem Solving Strategy

Find a Pattern

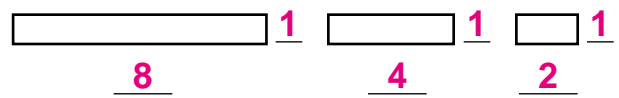
What if? Use the figures below to give examples that agree with your answers to the “What If” question. **Example numbers may vary.**

1. **What if** the width of a rectangle was doubled? What would happen to the area of the rectangle?



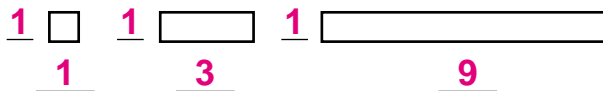
The area is doubled.

2. **What if** the width of a rectangle was divided by 2? What would happen to the area of the rectangle?



The area is halved.

3. **What if** the width of a rectangle was tripled? What would happen to the area of the rectangle?



The area is tripled.

4. **What if** the width of a rectangle was divided by 3? What would happen to the area of the rectangle?



The area is divided by 3.

5. What do you think would happen to the area of a rectangle whose width is multiplied by 4? divided by 4?

The area would be multiplied by 4; the area would be divided by 4.
