Name _____

Graph a Number Pattern

(I Can) graph a number pattern.
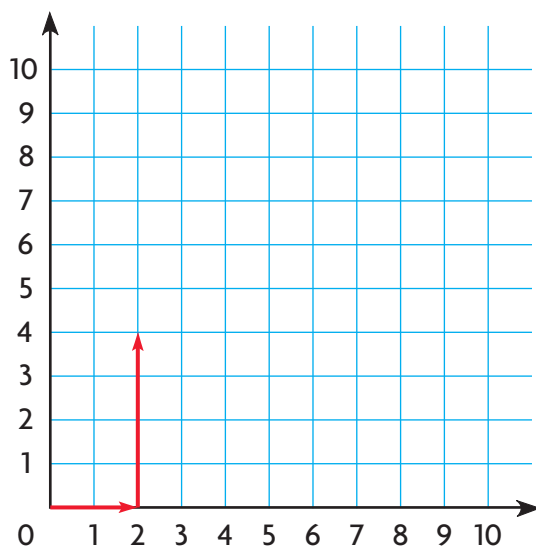
▣ UNLOCK the Problem

An airport taxi uses the rule $f = m + 2$ to calculate the fare for passengers. The number of miles m is the input, and the output is the fare f in dollars. Graph the pattern.

STEP 1 Label the horizontal number line to show that the input is number of miles. Label the vertical number line to show that the output is the fare.

STEP 2 Write a number pair and graph it.

For a trip that is 2 miles, the fare will be $_____.

The number pair is (2, _____).

Move right _____ units. Then move up _____ units and draw a point to represent the number pair.

STEP 3 Graph several number pairs.

Move right _____ units.   (_____, _____)   Move up _____ units.

Move right _____ units.   (_____, _____)   Move up _____ units.

Move right _____ units.   (_____, _____)   Move up _____ units.

Math Talk

MTR 4.1 Engage in discussions on mathematical thinking.

Explain what each number in the number pair represents.

(Go Online) For more help

Example Graph a multiplicative pattern.

Celina is counting the number of wheels on tricycles. The rule is $w = 3t$, where t is the number of tricycles and w is the number of wheels. Use the rule to show a pattern on the graph.

STEP 1 Label the horizontal number line to show the input is the number of tricycles. Label the vertical number line to show the output is the number of _____.

STEP 2 Write a number pair and graph it.
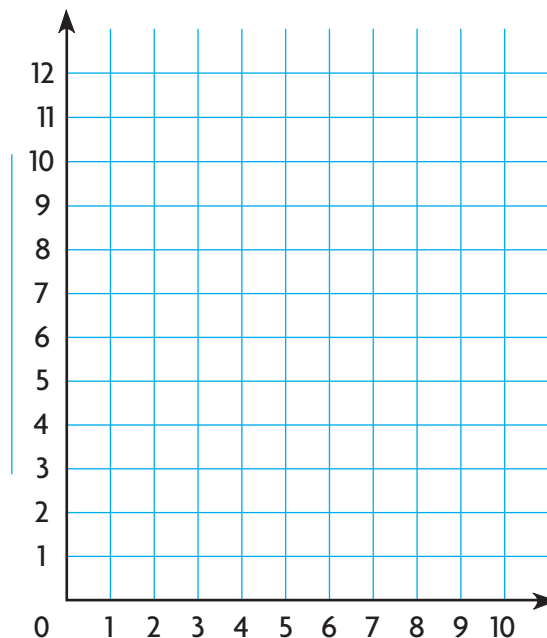
The input _____ times 3 is equal to the output _____.

The number pair is (_____ , _____).

STEP 3 Graph several number pairs.

Move right _____ units. (_____ , _____) Move up _____ units.

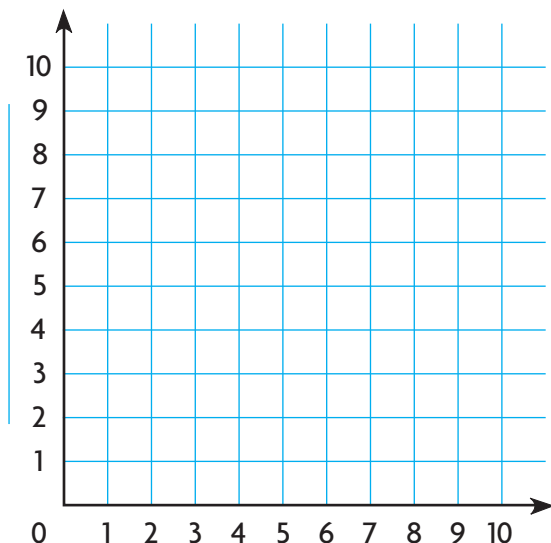Move right _____ units. (_____ , _____) Move up _____ units.

Move right _____ units. (_____ , _____) Move up _____ units.

Try Another Problem Real World

Use the rule to graph a pattern.

1. Each doll needs 2 shoes. The rule is $s = 2d$, where d is the number of dolls and s is the number of shoes.

2. The score for guessing the correct word is 4 and the number of letters in the word. The rule is $s = 4 + l$, where l is the number of letters and s is the score.