

# Write a Rule for Number Patterns in Tables

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Interactive Examples

Find the rule to describe the pattern in the table. Decide if the rule is additive or multiplicative.

1.

Input	Output
$m$	$n$
1	11
2	22
3	33
4	44

The rule is \_\_\_\_\_.

Rule: \_\_\_\_\_

2.

Input	$d$	3	5	7	9
Output	$f$	7	9	11	13

The rule is \_\_\_\_\_.

Rule: \_\_\_\_\_

3.

Input	$p$	2	3	4	5
Output	$q$	30	45	60	75

The rule is \_\_\_\_\_.

Rule: \_\_\_\_\_

4.

Input	Output
$s$	$t$
4	10
6	12
8	14
10	16

The rule is \_\_\_\_\_.

Rule: \_\_\_\_\_

## Problem Solving

5. Marco pours 12 ounces of cranberry juice into a punch bowl. He uses a container to add sparkling water to the bowl one ounce at a time. Write a rule to show the pattern and use it to calculate how many ounces of liquid Marco will have in the bowl after adding 8 containers of sparkling water.

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## Lesson Check

Fill in the bubble completely to show your answer.

6. The winning entry in the inventors' competition was a robot made with wheels, gears, and bolts. Using the table shown below, how many bolts are needed to make 7 robots?

Number of robots	1	2	3	4
Wheels	4	8	12	16
Gears	3	6	9	12
Bolts	8	16	24	32

- Ⓐ 40                      Ⓒ 28  
Ⓑ 21                      Ⓓ 56
8. The equation  $c = \$0.75p$  represents the cost of mailing a package for each pound, where  $c$  is the cost and  $p$  is the number of pounds. If Leila mails a package that weighs 5 pounds, what is the total cost?
- Ⓐ \$3.00  
Ⓑ \$4.50  
Ⓒ \$3.75  
Ⓓ \$3.55
7. Which of the following rules describes the pattern in the table?

Input	$h$	3	4	5
Output	$j$	12	13	14

- Ⓐ  $j = h + 9$   
Ⓑ  $j = 9h$   
Ⓒ  $h = j + 9$   
Ⓓ  $h = 9j$

9. The equation  $d = m + 16$  represents the total distance traveled after driving  $m$  number of miles. If Mrs. Kiki drives 35 miles, what is the total distance traveled?

- Ⓐ 41 miles  
Ⓑ 21 miles  
Ⓒ 51 miles  
Ⓓ 19 miles

## Spiral Review

10. Which product is greater than  $\frac{3}{8}$ ?
- Ⓐ  $\frac{3}{8} \times \frac{1}{2}$   
Ⓑ  $\frac{3}{8} \times \frac{7}{8}$   
Ⓒ  $\frac{3}{8} \times \frac{8}{7}$   
Ⓓ  $\frac{3}{8} \times \frac{11}{12}$
11. Which is another way to write  $\frac{15}{9}$ ?
- Ⓐ  $15 \times 9$   
Ⓑ  $9 \times 15$   
Ⓒ  $15 \div 9$   
Ⓓ  $9 \div 15$