What is the Rule?

The symbols ◊ and ∂ are rules for combining numbers.

What does ◊ stand for?

5 ◊ 4 = 5

6 ◊ 9 = 9

6 ◊ 3 = 6

6 ◊ 5 = 6

What does ∂ stand for?

5 ∂ 2 = 12

3 ∂ 4 = 10

2 ∂ 5 = 9

4 ∂ 0 = 8

The symbol ▲ is another rule for combining numbers

2 ▲ 3 = 8, 3 ▲ 2 = 9 , 3 ▲ 4 = 81

complete these calculations

__ ▲ __ = 64 __ ▲ __ = 32

__ ▲ __ = 5 __ ▲ __ = 3125

Continue these two patterns:

1 ▮ 4 ✚ 2 ▮ 7 ✚ 5 ▮ 16 ✚ 14 . . .

18 ➡ 9 ◆ 26 ➡ 13 ◆ 38 ➡ 19 ◆ 56. . .

Learning and Teaching Objectives

- Give examples which match a given statement and ones which do not
- Describe a rule of a pattern or relationship in words or symbols
- Use a rule to decide whether a given number will be in a sequence or not

What is the Rule Solution

◊ → write down the larger number

∂ → double the first number and add the second

▲ → the first number to the power of the second number (3▲2 = 3^2)

8 ▲ 2 = 64 **2 ▲ 5 = 32**

5 ▲ 1 = 5 **5 ▲ 5 = 3125**

 **x 3 + 1,**  **- 2**

 **÷ 2 ,**  **x 3 -1**