

# 次の数列の第 $n$ 項を求めなさい (その 1)

$$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots$$

# 次の数列の第 $n$ 項を求めなさい (その 1)

1

2

3

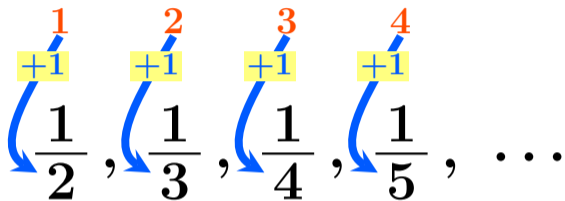
4

$n$

$\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\dots$

?

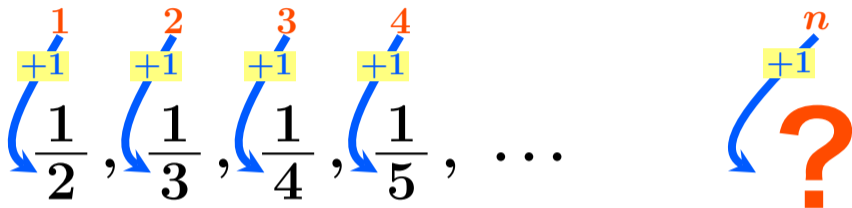
# 次の数列の第 $n$ 項を求めなさい (その 1)



The diagram shows a sequence of terms:  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots$ . Above each term is a red number: 1, 2, 3, 4. A blue arrow points from each red number down to a yellow box containing '+1'. Another blue arrow points from each yellow box down to the denominator of the next term. For example, an arrow goes from the '1' above  $\frac{1}{2}$  to the '+1' box, and another arrow goes from that '+1' box to the '3' above  $\frac{1}{3}$ .

$n$   
?

# 次の数列の第 $n$ 項を求めなさい (その 1)



# 次の数列の第 $n$ 項を求めなさい (その 1)

The diagram illustrates the sequence  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots, \frac{1}{n+1}$ . Each term is shown with a blue arrow pointing from the denominator of the previous term to the denominator of the current term. Above each arrow is a yellow box containing the number 1, indicating that 1 is added to the denominator. The terms are labeled with red numbers 1, 2, 3, 4, ..., n above the arrows, corresponding to the step number.

$$\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots, \frac{1}{n+1}$$

# 次の数列の第 $n$ 項を求めなさい (その 1)

The diagram illustrates the sequence  $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots, \frac{1}{n+1}$ . Above each term, a red number indicates the step: 1, 2, 3, 4, ...,  $n$ . A yellow box containing "+1" is placed above each term, with a blue arrow pointing from the box to the denominator of the term below it, showing that 1 is added to the denominator of each term to get the next term.

答  $a_n = \frac{1}{n+1}$

## 次の数列の第 $n$ 項を求めなさい (その 2)

$$\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots$$

## 次の数列の第 $n$ 項を求めなさい (その 2)

1

2

3

4

$n$

$\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{6}$ ,  $\frac{1}{8}$ ,  $\dots$

?



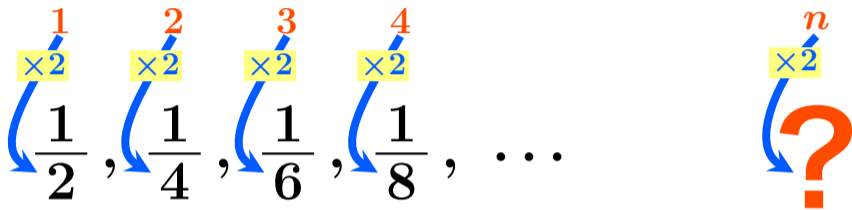
# 次の数列の第 $n$ 項を求めなさい (その 2)

The diagram shows a sequence of terms:  $\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots$ . Above each term is a red number: 1, 2, 3, 4. A blue arrow points from each term to the next, with a yellow box containing  $\times 2$  above the arrow. This indicates that each term is multiplied by 2 to get the next term.

$$\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots$$

$n$   
?

# 次の数列の第 $n$ 項を求めなさい (その 2)



# 次の数列の第 $n$ 項を求めなさい (その 2)

The diagram illustrates a sequence of terms:  $\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots, \frac{1}{2n}$ . Above each term is a red number: 1, 2, 3, 4, ...,  $n$ . A blue arrow points from each term to the next, with a yellow box containing  $\times 2$  above the arrow. This indicates that each term is multiplied by 2 to get the next term.

## 次の数列の第 $n$ 項を求めなさい (その 2)

The diagram illustrates the sequence  $\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots, \frac{1}{2n}$ . Blue arrows point from each term to the next, with a yellow box containing  $\times 2$  above each arrow. Red numbers 1, 2, 3, 4, and  $n$  are placed above the arrows, indicating the step number. The sequence is shown as  $\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \dots, \frac{1}{2n}$ .

答  $a_n = \frac{1}{2n}$

# 次の数列の第 $n$ 項を求めなさい (その 3)

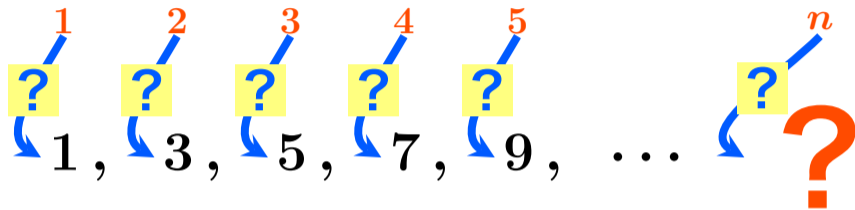
1, 3, 5, 7, 9, ...

# 次の数列の第 $n$ 項を求めなさい (その 3)

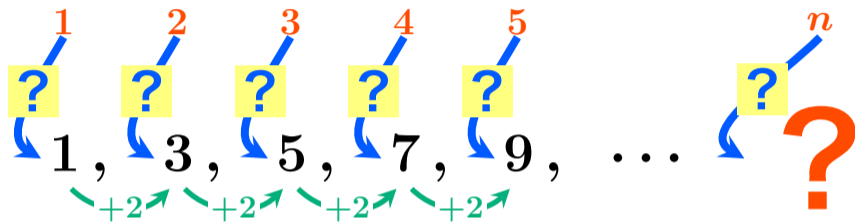
1      2      3      4      5                       $n$

1, 3, 5, 7, 9, ...      ?

# 次の数列の第 $n$ 項を求めなさい (その 3)

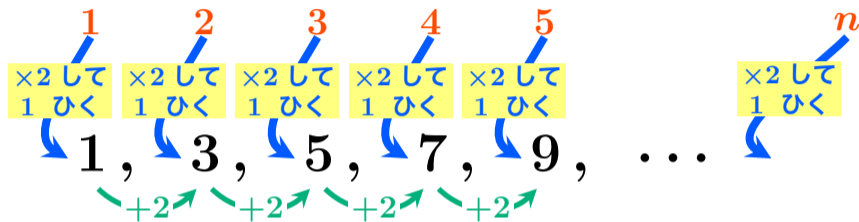


# 次の数列の第 $n$ 項を求めなさい (その 3)

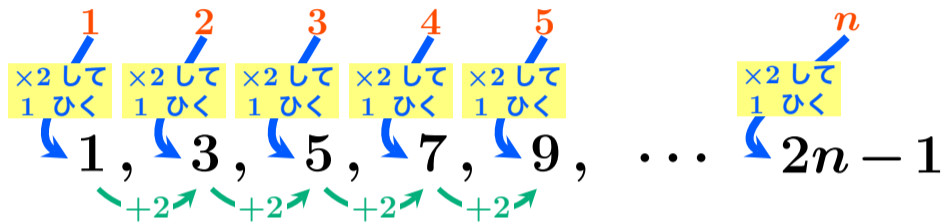




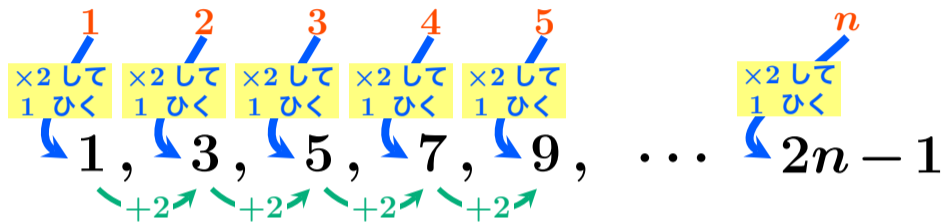
# 次の数列の第 $n$ 項を求めなさい (その 3)



# 次の数列の第 $n$ 項を求めなさい (その 3)



# 次の数列の第 $n$ 項を求めなさい (その 3)



答  $a_n = 2n - 1$

## 次の数列の第 $n$ 項を求めなさい (その 4)

$-3, -7, -11, -15, -19, \dots$

# 次の数列の第 $n$ 項を求めなさい (その 4)

1

2

3

4

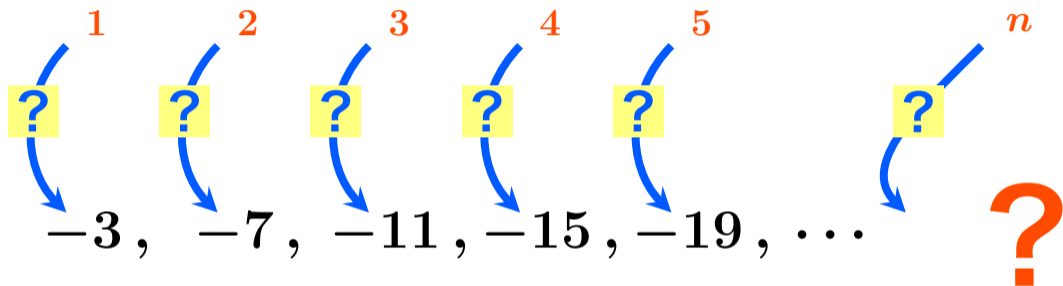
5

$n$

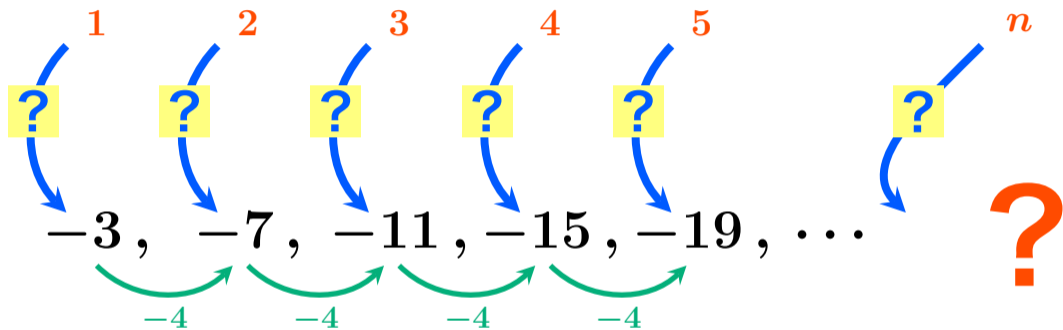
$-3, -7, -11, -15, -19, \dots$



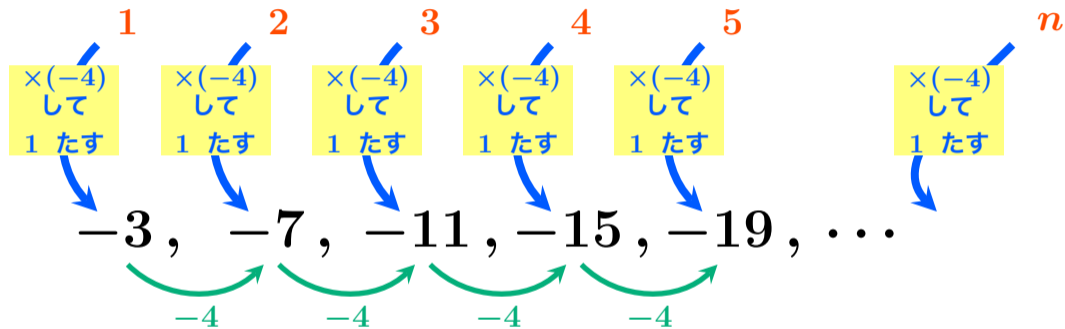
# 次の数列の第 $n$ 項を求めなさい (その 4)



# 次の数列の第 $n$ 項を求めなさい (その 4)

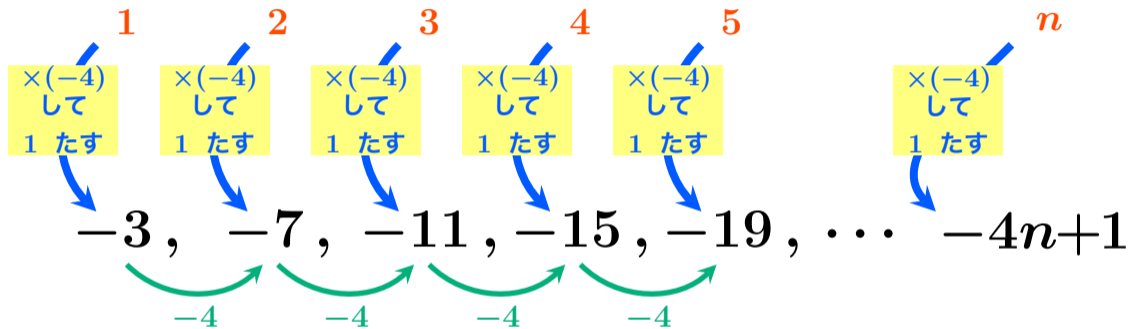


# 次の数列の第 $n$ 項を求めなさい (その 4)

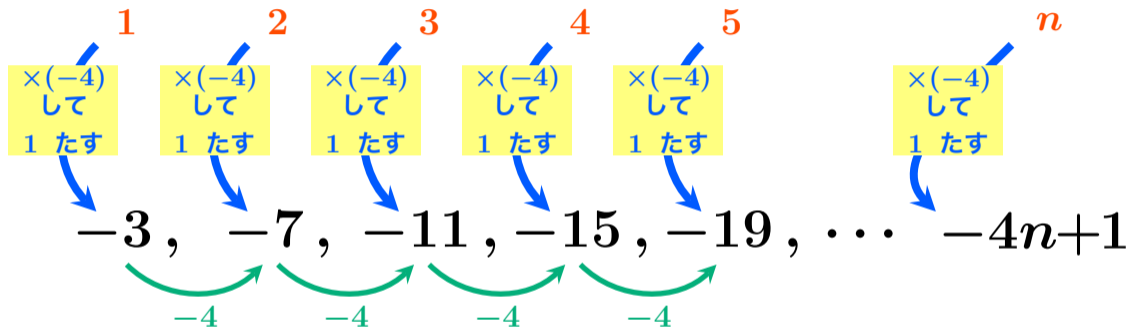




# 次の数列の第 $n$ 項を求めなさい (その 4)



# 次の数列の第 $n$ 項を求めなさい (その 4)



答  $a_n = -4n + 1$

## 次の数列の第 $n$ 項を求めなさい (その 5)

3 , 9 , 27 , 81 , 243 , ...

# 次の数列の第 $n$ 項を求めなさい (その 5)

1

2

3

4

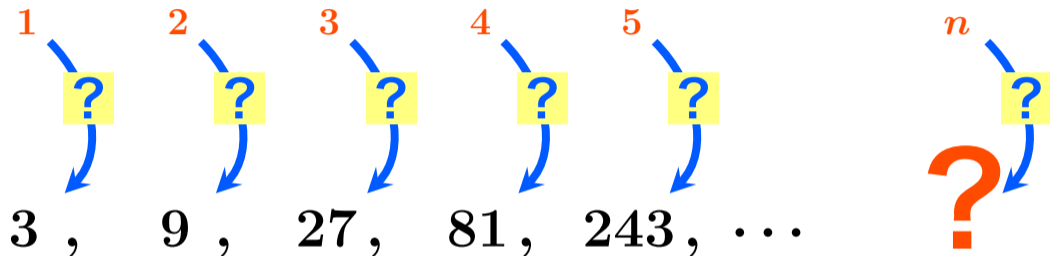
5

$n$

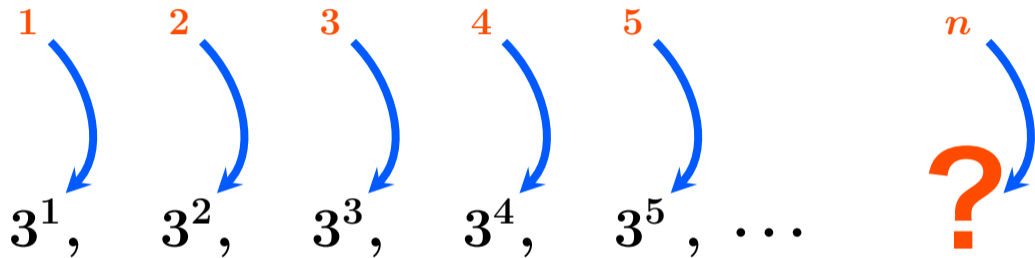
3 , 9 , 27 , 81 , 243 , ...

?

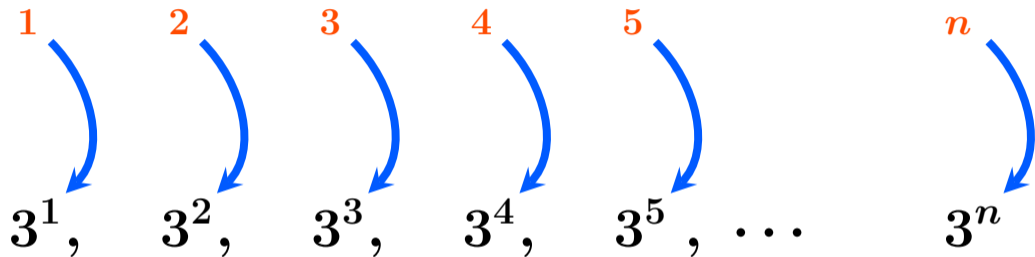
# 次の数列の第 $n$ 項を求めなさい (その 5)



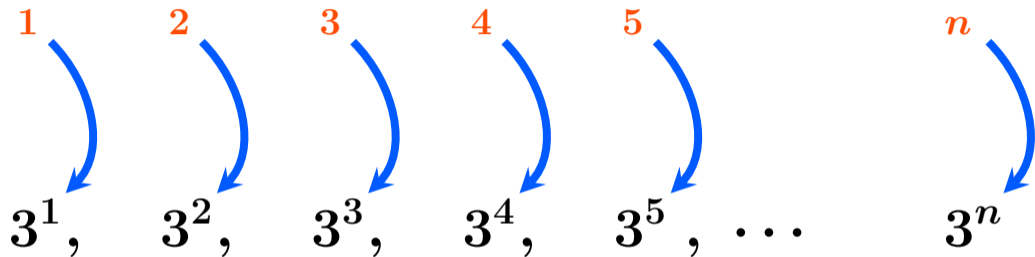
# 次の数列の第 $n$ 項を求めなさい (その 5)



# 次の数列の第 $n$ 項を求めなさい (その 5)



# 次の数列の第 $n$ 項を求めなさい (その 5)



☐ 答  $a_n = 3^n$



# 次の数列の第 $n$ 項を求めなさい (その 6)

5 , 10 , 15 , 20 , ...

# 次の数列の第 $n$ 項を求めなさい (その 6)

1

2

3

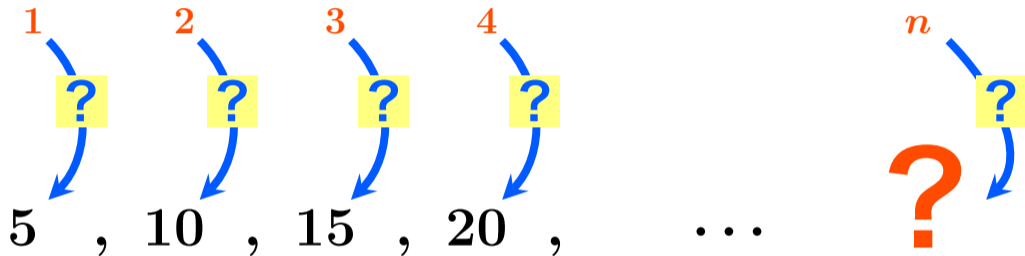
4

$n$

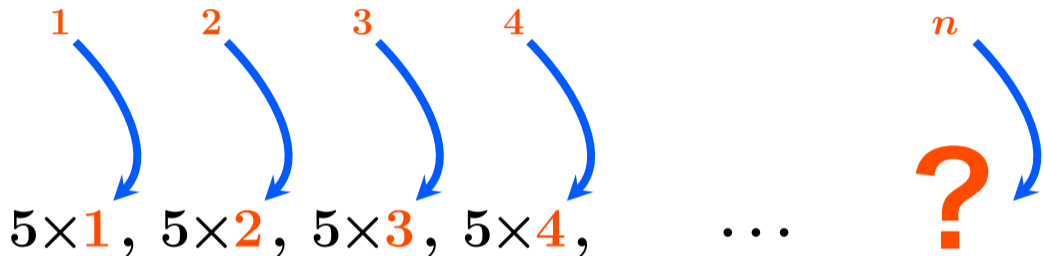
5 , 10 , 15 , 20 , ...

?

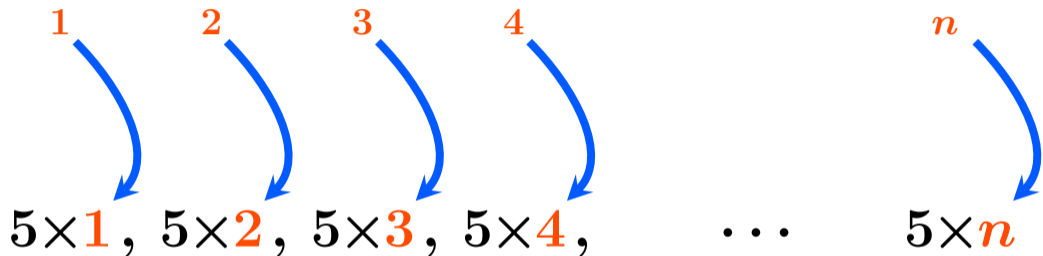
# 次の数列の第 $n$ 項を求めなさい (その 6)



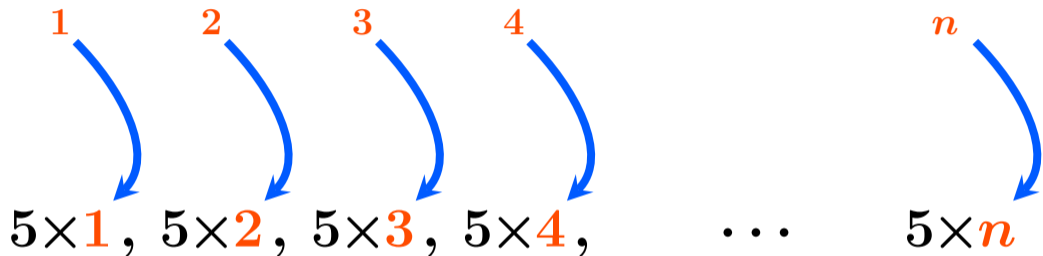
# 次の数列の第 $n$ 項を求めなさい (その 6)



# 次の数列の第 $n$ 項を求めなさい (その 6)



# 次の数列の第 $n$ 項を求めなさい (その 6)



☐ 答  $a_n = 5n$