A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 3, a_2 = 7$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 4, a_2 = 3$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 2, a_2 = 5$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 11, a_2 = 17$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 13, a_2 = 8$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 17, a_2 = 5$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 17, a_2 = 3$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 333, a_2 = 297$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with } a_1 = 997, a_2 = 21$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with } a_1 = 9, a_2 = 3$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = -2, a_2 = 5$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with} \quad a_1 = 3, a_2 = -3$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with } a_1 = 100, a_2 = 7$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \quad \text{with } a_1 = 1000, a_2 = 7$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \text{ with } a_1 = 1000, a_2 = 351$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23

A Fractional Sequence

The terms of a sequence are given by the inductive formula:

$$a_k = \frac{1+a_{k-1}}{a_{k-2}} \text{ with } a_1 = 537, a_2 = 11$$

k	a_k
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

Find the values of a_{11} and a_{12}.

Experiment with your own values of a_1 and a_2

Make a conjecture about the behaviour of this sequence.

Can you prove your conjecture?

SIC_23