

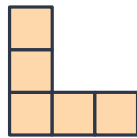
Growing Shape Patterns

Look at how each pattern grows. Draw step 4 on the grid.

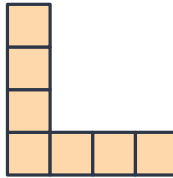
Example



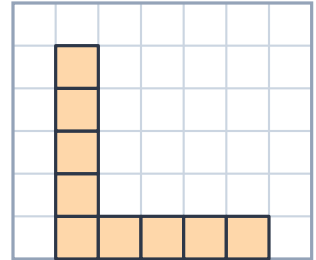
Step 1



Step 2



Step 3

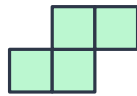


Step 4

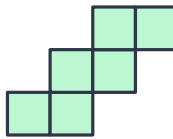
1.



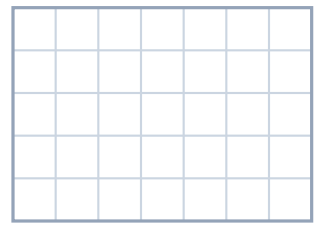
Step 1



Step 2

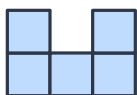


Step 3

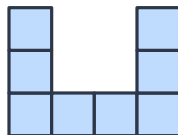


Step 4

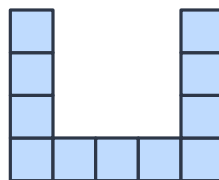
2.



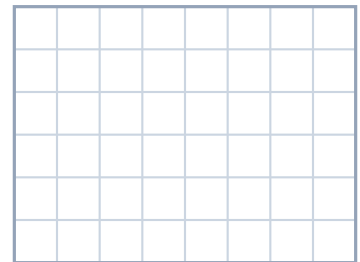
Step 1



Step 2



Step 3

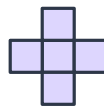


Step 4

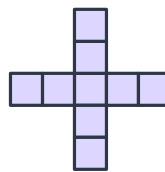
3.



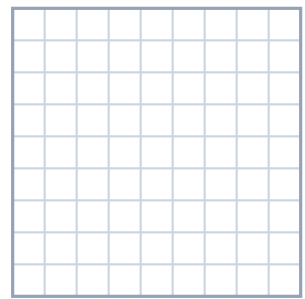
Step 1



Step 2



Step 3

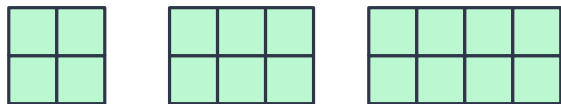


Step 4

Growing Shape Patterns

Count the tiles. Fill in the table up to step 6.

1.



Step 1

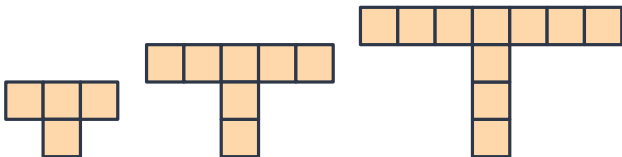
Step 2

Step 3

Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

2.



Step 1

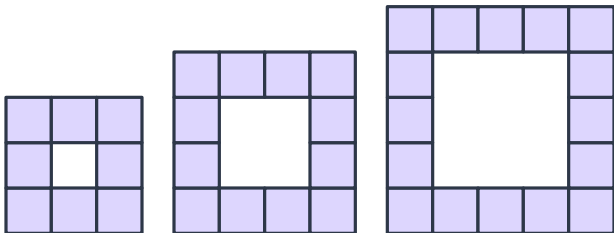
Step 2

Step 3

Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

3.



Step 1

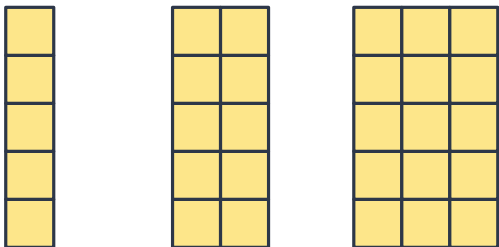
Step 2

Step 3

Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

4.



Step 1

Step 2

Step 3

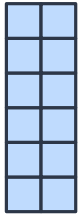
Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

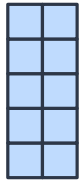
Growing Shape Patterns

These patterns shrink. Draw step 4. Then count.

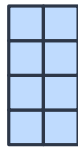
1.



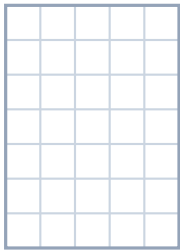
Step 1



Step 2



Step 3

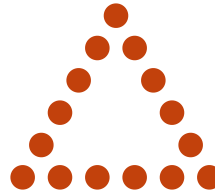


Step 4

Step 4 has _____ tiles.

It loses _____ tiles
each step.

2.



Step 1



Step 2



Step 3

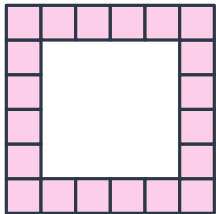


Step 4

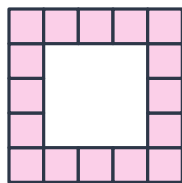
Step 4 has _____ dots.

It loses _____ dots
each step.

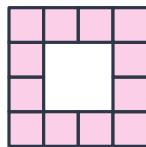
3.



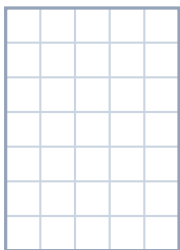
Step 1



Step 2



Step 3

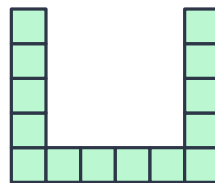


Step 4

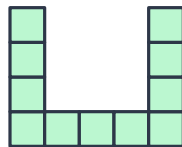
Step 4 has _____ tiles.

It loses _____ tiles
each step.

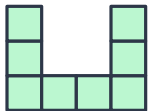
4.



Step 1



Step 2



Step 3



Step 4

Step 4 has _____ tiles.

It loses _____ tiles
each step.

Growing Shape Patterns

Count the sticks. Fill in the table. Then predict step 10.

1.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

2.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

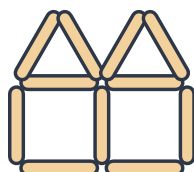
Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

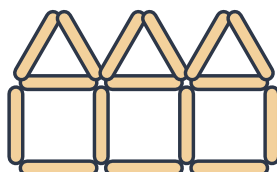
3.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

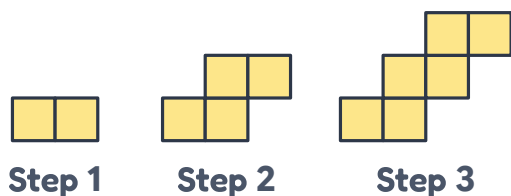
Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

Growing Shape Patterns

Think it through. Answer each question.

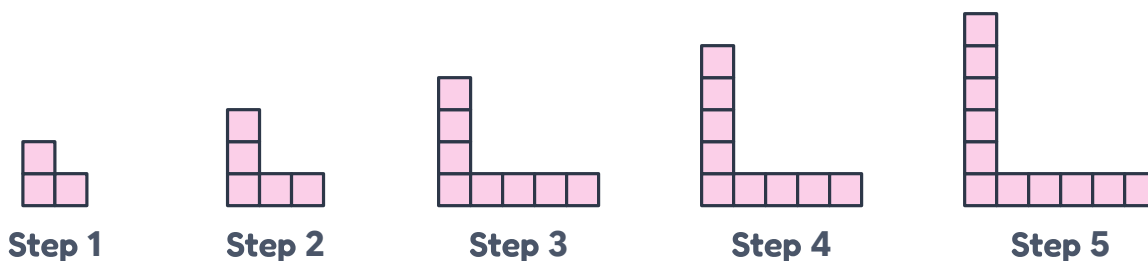
1. This pattern keeps growing. Which step has 14 tiles?



Step	1	2	3	4	5	6	7
Tiles							

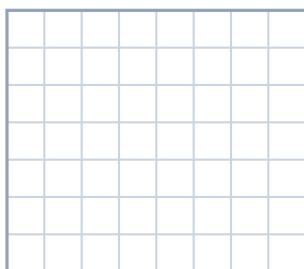
Step _____ has 14 tiles.

2. One step is drawn wrong. Circle it.

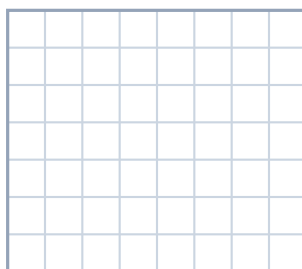


How many tiles should that step have? _____

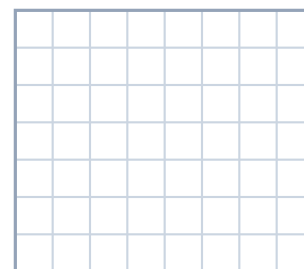
3. Make your own growing pattern. Draw steps 1, 2, and 3.



Step 1



Step 2



Step 3

My pattern grows by _____ tiles each step.

Step 4 of my pattern will have _____ tiles.

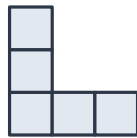
Growing Shape Patterns

Look at how each pattern grows. Draw step 4 on the grid.

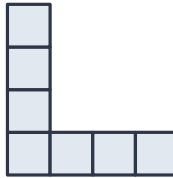
Example



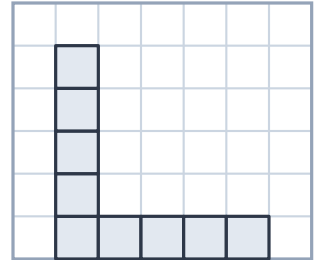
Step 1



Step 2



Step 3



Step 4

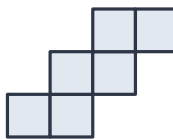
1.



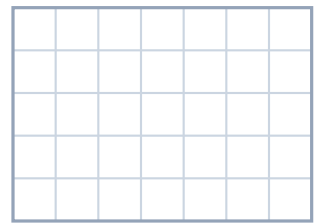
Step 1



Step 2



Step 3



Step 4

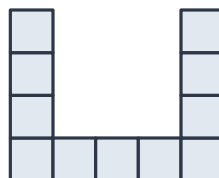
2.



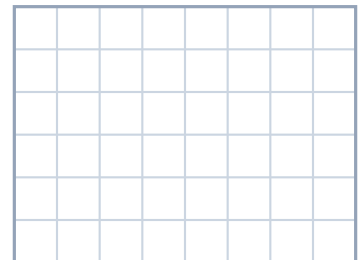
Step 1



Step 2



Step 3



Step 4

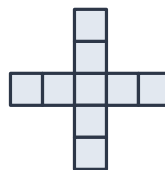
3.



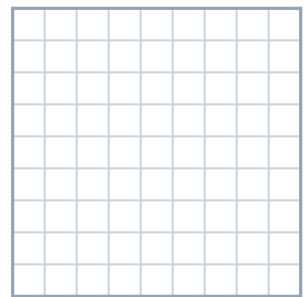
Step 1



Step 2



Step 3



Step 4

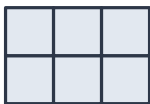
Growing Shape Patterns

Count the tiles. Fill in the table up to step 6.

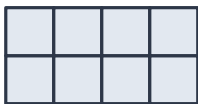
1.



Step 1



Step 2



Step 3

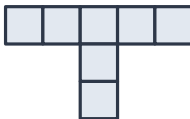
Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

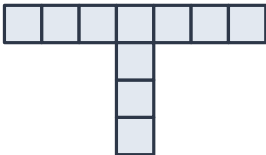
2.



Step 1



Step 2

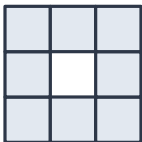


Step 3

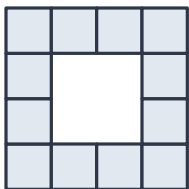
Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

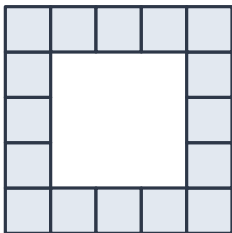
3.



Step 1



Step 2



Step 3

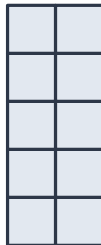
Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

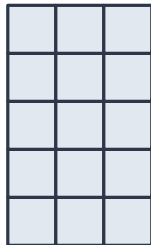
4.



Step 1



Step 2



Step 3

Step	1	2	3	4	5	6
Tiles						

Each step adds _____ tiles.

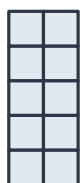
Growing Shape Patterns

These patterns shrink. Draw step 4. Then count.

1.



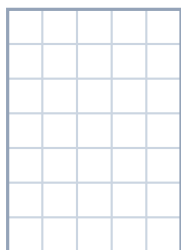
Step 1



Step 2



Step 3



Step 4

Step 4 has _____ tiles.

It loses _____ tiles
each step.

2.



Step 1



Step 2



Step 3

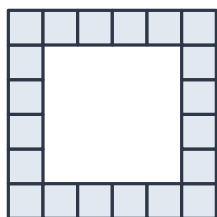


Step 4

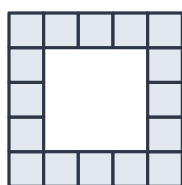
Step 4 has _____ dots.

It loses _____ dots
each step.

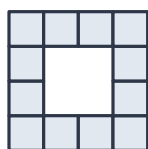
3.



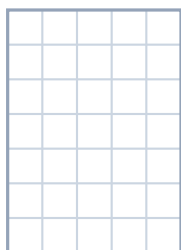
Step 1



Step 2



Step 3

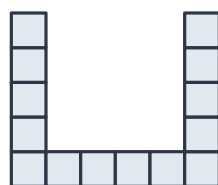


Step 4

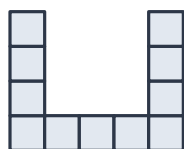
Step 4 has _____ tiles.

It loses _____ tiles
each step.

4.



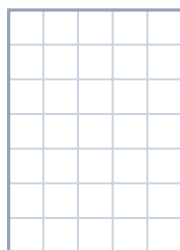
Step 1



Step 2



Step 3



Step 4

Step 4 has _____ tiles.

It loses _____ tiles
each step.

Growing Shape Patterns

Count the sticks. Fill in the table. Then predict step 10.

1.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

2.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

3.



Step 1



Step 2



Step 3

Each step adds _____ sticks.

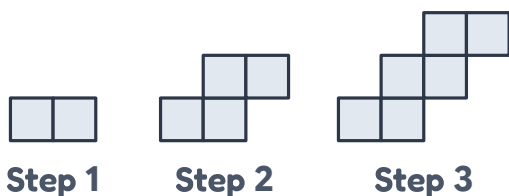
Step 10 has _____ sticks.

Step	1	2	3	4	5	6
Sticks						

Growing Shape Patterns

Think it through. Answer each question.

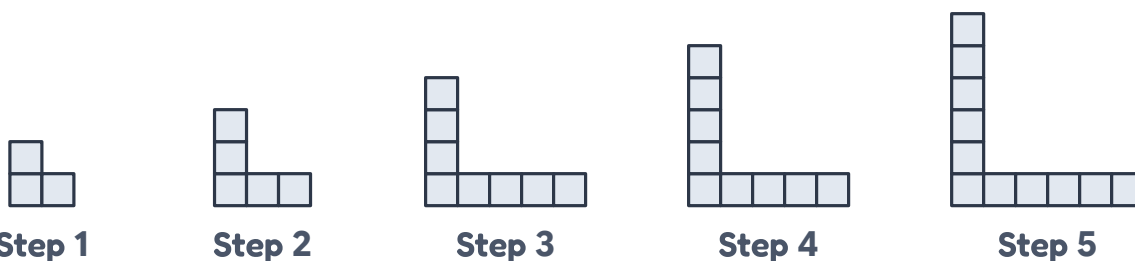
1. This pattern keeps growing. Which step has 14 tiles?



Step	1	2	3	4	5	6	7
Tiles							

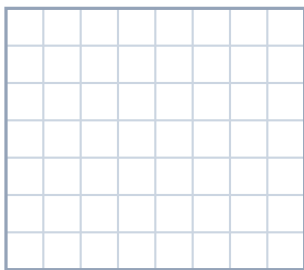
Step _____ has 14 tiles.

2. One step is drawn wrong. Circle it.

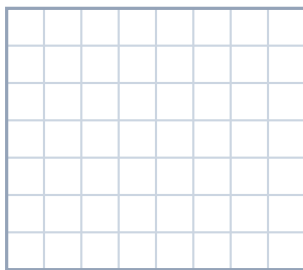


How many tiles should that step have? _____

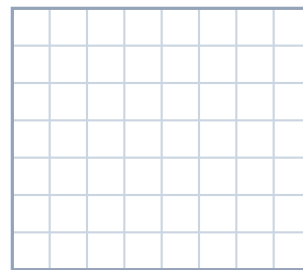
3. Make your own growing pattern. Draw steps 1, 2, and 3.



Step 1



Step 2



Step 3

My pattern grows by _____ tiles each step.

Step 4 of my pattern will have _____ tiles.

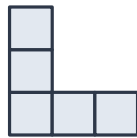
Growing Shape Patterns

Look at how each pattern grows. Draw step 4 on the grid.

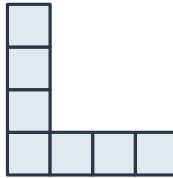
Example



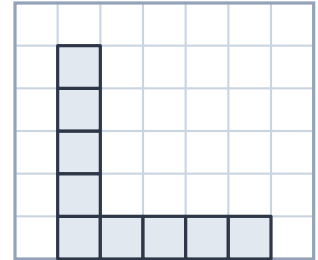
Step 1



Step 2



Step 3



Step 4

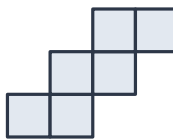
1.



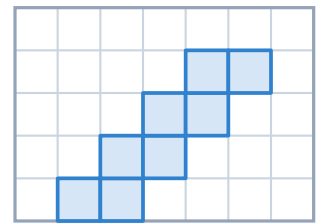
Step 1



Step 2



Step 3



Step 4

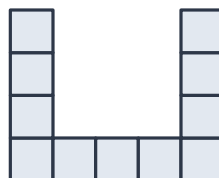
2.



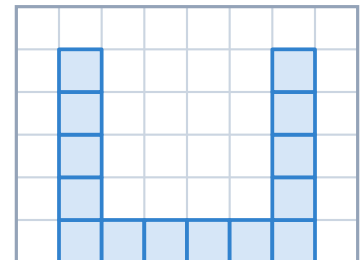
Step 1



Step 2



Step 3



Step 4

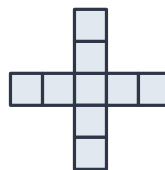
3.



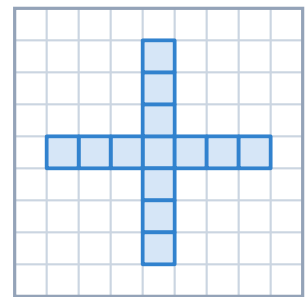
Step 1



Step 2



Step 3



Step 4

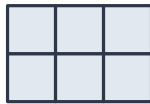
Growing Shape Patterns

Count the tiles. Fill in the table up to step 6.

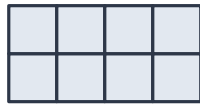
1.



Step 1



Step 2



Step 3

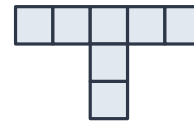
Step	1	2	3	4	5	6
Tiles	4	6	8	10	12	14

Each step adds 2 tiles.

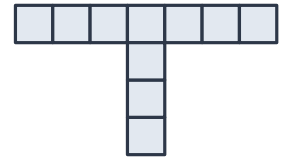
2.



Step 1



Step 2

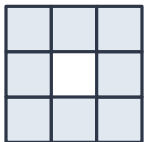


Step 3

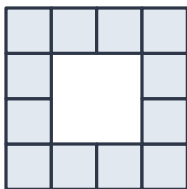
Step	1	2	3	4	5	6
Tiles	4	7	10	13	16	19

Each step adds 3 tiles.

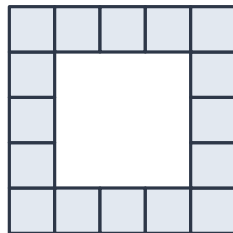
3.



Step 1



Step 2



Step 3

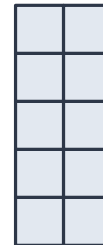
Step	1	2	3	4	5	6
Tiles	8	12	16	20	24	28

Each step adds 4 tiles.

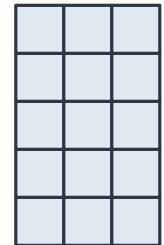
4.



Step 1



Step 2



Step 3

Step	1	2	3	4	5	6
Tiles	5	10	15	20	25	30

Each step adds 5 tiles.

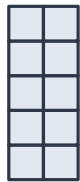
Growing Shape Patterns

These patterns shrink. Draw step 4. Then count.

1.



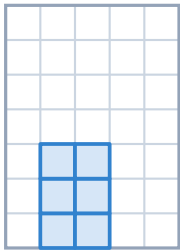
Step 1



Step 2



Step 3

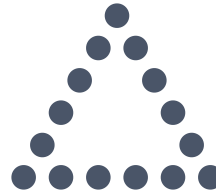


Step 4

Step 4 has 6 tiles.

It loses 2 tiles each step.

2.



Step 1



Step 2



Step 3

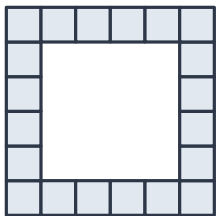


Step 4

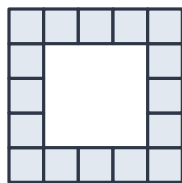
Step 4 has 6 dots.

It loses 3 dots each step.

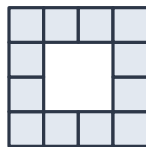
3.



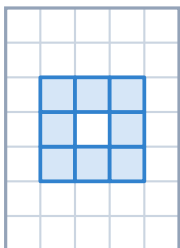
Step 1



Step 2



Step 3

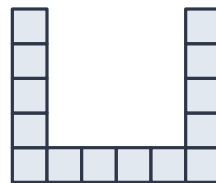


Step 4

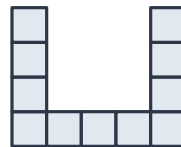
Step 4 has 8 tiles.

It loses 4 tiles each step.

4.



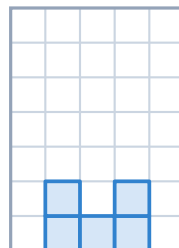
Step 1



Step 2



Step 3



Step 4

Step 4 has 5 tiles.

It loses 3 tiles each step.

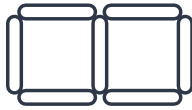
Growing Shape Patterns

Count the sticks. Fill in the table. Then predict step 10.

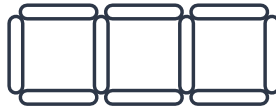
1.



Step 1



Step 2



Step 3

Each step adds 3 sticks.

Step 10 has 31 sticks.

Step	1	2	3	4	5	6
Sticks	4	7	10	13	16	19

2.



Step 1



Step 2



Step 3

Each step adds 2 sticks.

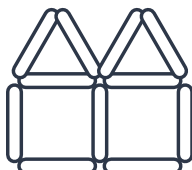
Step 10 has 21 sticks.

Step	1	2	3	4	5	6
Sticks	3	5	7	9	11	13

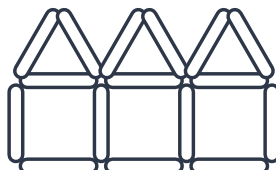
3.



Step 1



Step 2



Step 3

Each step adds 5 sticks.

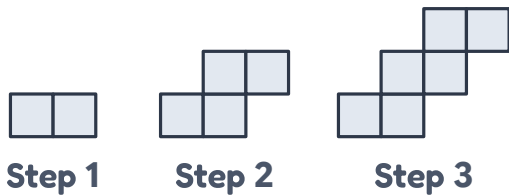
Step 10 has 51 sticks.

Step	1	2	3	4	5	6
Sticks	6	11	16	21	26	31

Growing Shape Patterns

Think it through. Answer each question.

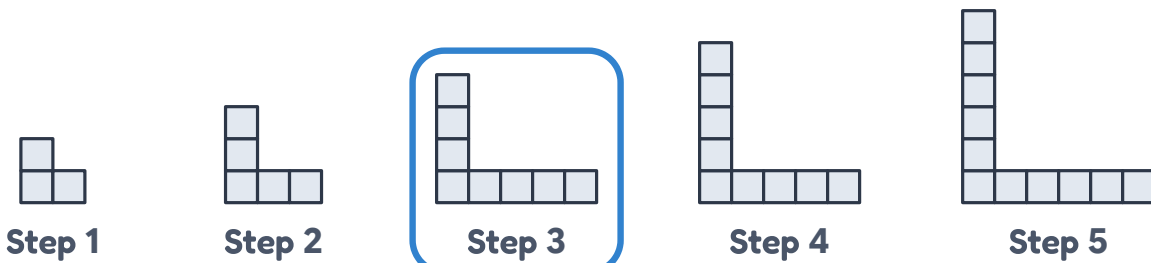
1. This pattern keeps growing. Which step has 14 tiles?



Step	1	2	3	4	5	6	7
Tiles	2	4	6	8	10	12	14

Step 7 has 14 tiles.

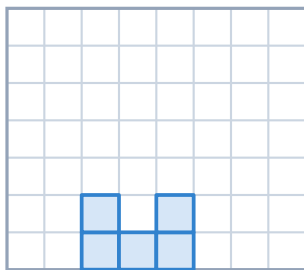
2. One step is drawn wrong. Circle it.



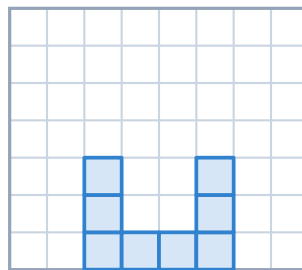
How many tiles should that step have? 7

3. Make your own growing pattern. Draw steps 1, 2, and 3.

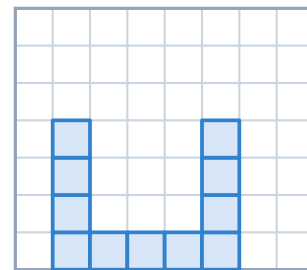
One answer



Step 1



Step 2



Step 3

My pattern grows by 3 tiles each step.

Step 4 of my pattern will have 14 tiles.