



Learn a new puzzle

Growing Patterns

Look at how it grows. Answer the question.

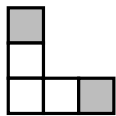
Trick: **Shade what each step adds**

1

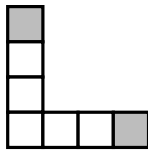
Step 1



Step 2



Step 3



Shade the new squares.

Each step adds 2: one on each arm.

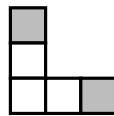
2

Step 1



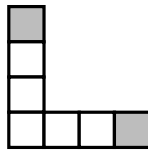
3

Step 2



5

Step 3



7

Count: 3, 5, 7. Step 1 has 3, then add 2 each step.

3

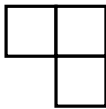
Step	1	2	3	...	10
Squares	3	5	7	...	21

+2 +2

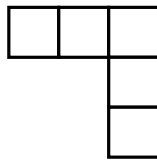
Step 10 adds 2 nine times:
 $3 + 2 \times 9 = 21$.

Try it

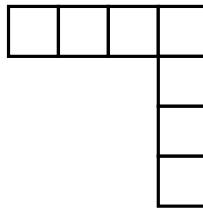
Step 1



Step 2



Step 3



How many squares in step 8?



The answer is with the other answers.

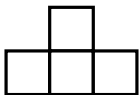
Talk about it: Ask: How many squares does each step add? How do you know?



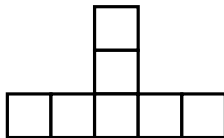
① **Growing Patterns** Look at how it grows. Answer the question.



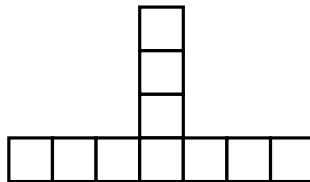
Step 1



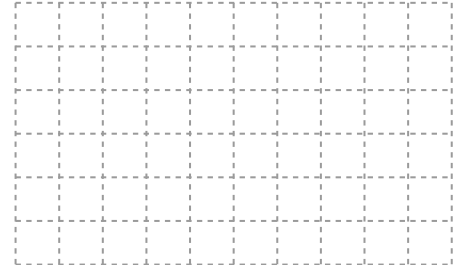
Step 2



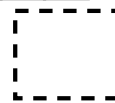
Step 3



Step 4



Draw step 4. How many squares?



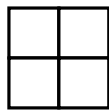
② **Growing Patterns** Look at how it grows. Answer the question.



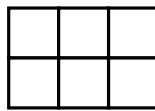
Step 1



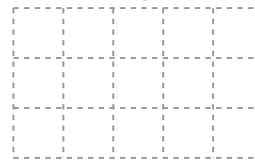
Step 2



Step 3



Step 4



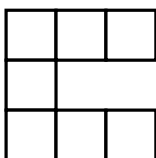
Draw step 4. How many squares?



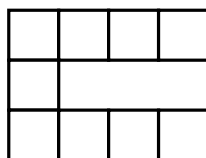
③ **Growing Patterns** Look at how it grows. Answer the question.



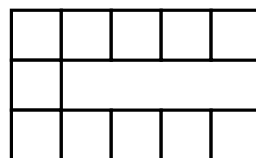
Step 1



Step 2



Step 3



Step 4



Draw step 4. How many squares?





- 4 Growing Patterns Look at how it grows. Answer the question.

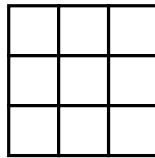
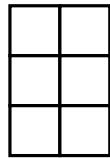


tep 1

Step 2

Step 3

Step 4



Draw step 4. How many squares?

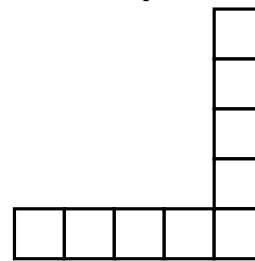
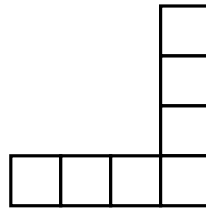
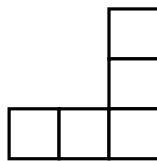
- 5 Growing Patterns Look at how it grows. Answer the question.



Step 1

Step 2

Step 3



How many squares in step 9?

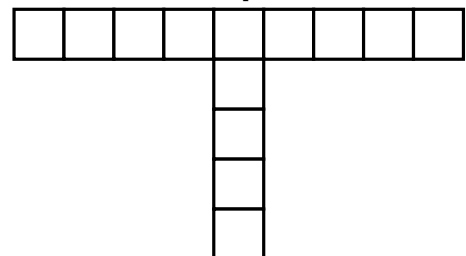
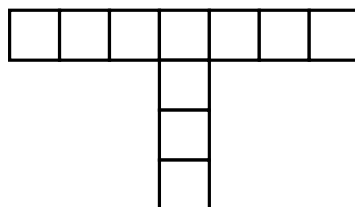
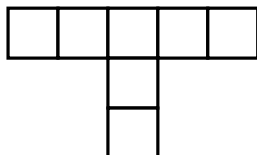
- 6 Growing Patterns Look at how it grows. Answer the question.



Step 1

Step 2

Step 3



How many squares in step 10?

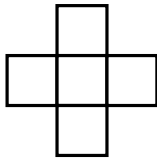


7

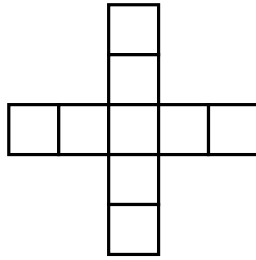
Growing Patterns Look at how it grows. Answer the question.



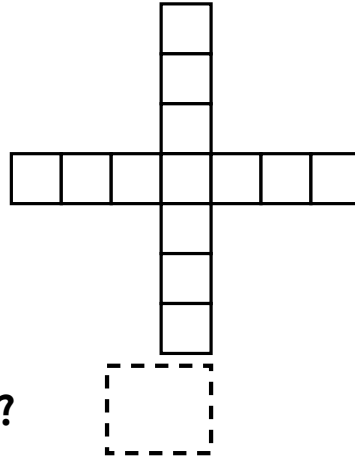
Step 1



Step 2



Step 3



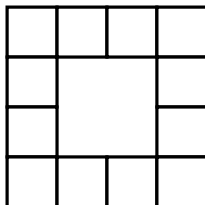
How many squares in step 7?

8

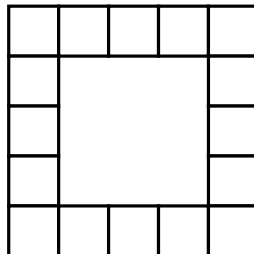
Growing Patterns Look at how it grows. Answer the question.



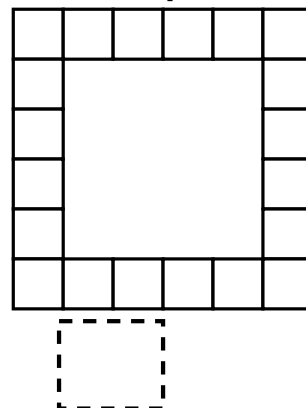
Step 1



Step 2



Step 3



How many squares in step 6?

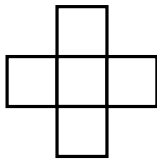


9

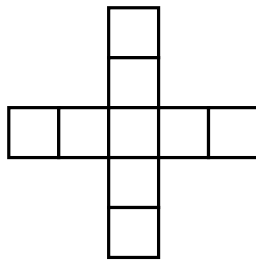
Growing Patterns Look at how it grows. Answer the question.



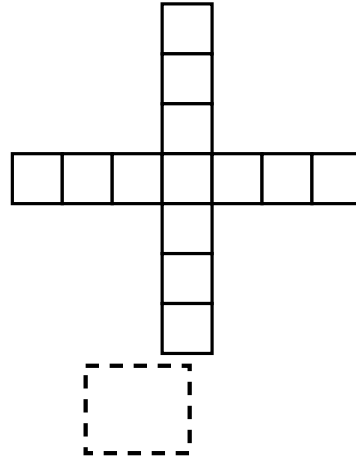
Step 1



Step 2



Step 3



Which step has 25 squares?

10

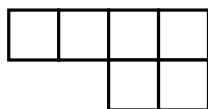
Growing Patterns Look at how it grows. Answer the question.



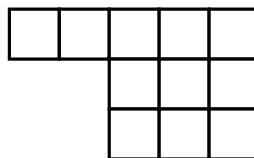
Step 1



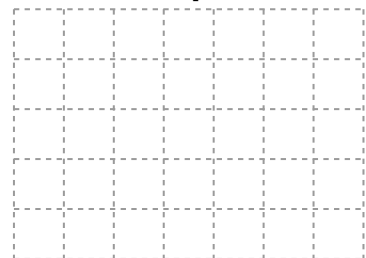
Step 2



Step 3



Step 4

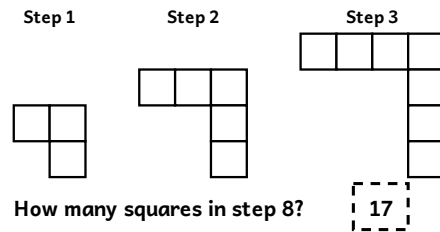


Draw step 4. How many squares?



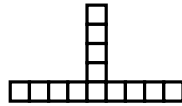
Answers For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn · Growing Patterns



#1

13 squares



13. Each step adds 3: 4, 7, 10, then $10 + 3 = 13$.

#2

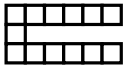
8 squares



8. Each step adds 2: 2, 4, 6, then $6 + 2 = 8$.

#3

13 squares



13. Each step adds 2: 7, 9, 11, then $11 + 2 = 13$.

#4

12 squares



12. Each step adds 3: 3, 6, 9, then $9 + 3 = 12$.

#5

21 squares

21. Each step adds 2. Step 1 has 5, so step 9 has $5 + 2 \times 8 = 21$.

#6

34 squares

34. Each step adds 3. Step 1 has 7, so step 10 has $7 + 3 \times 9 = 34$.

#7

29 squares

29. Each step adds 4. Step 1 has 5, so step 7 has $5 + 4 \times 6 = 29$.

#8

32 squares

32. Each step adds 4 (one on each side: the corners count once). Step 1 has 12, so step 6 has $12 + 4 \times 5 = 32$.

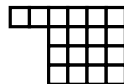
#9

Step 6

Step 6. Each step adds 4. Step 1 has 5, and $25 - 5 = 20 = 4 \times 5$, so it is step 6.

#10

18 squares



18. Step 4 is a 4×4 square: 16 squares plus the 2 on the side.