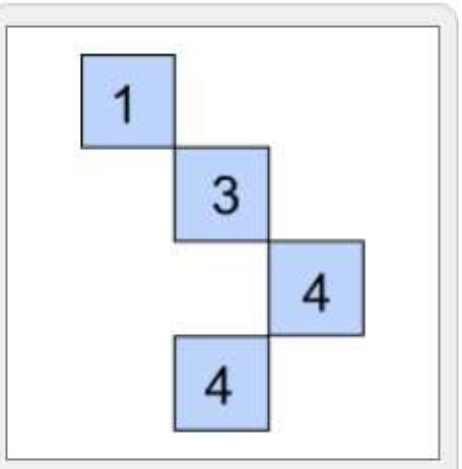
Question 1 of 20

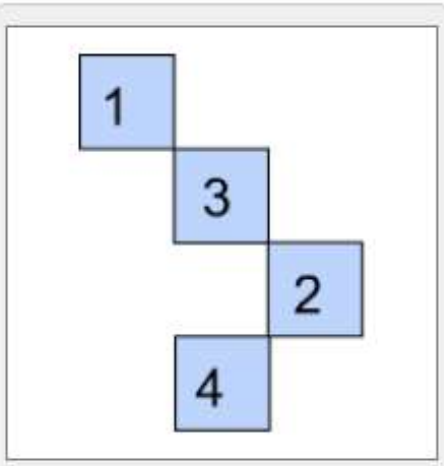
Next

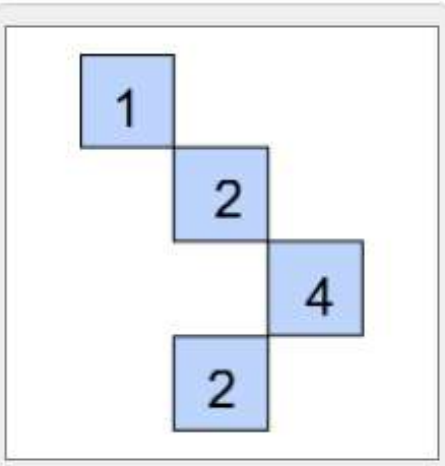
In each row of a table the same numbers appear.

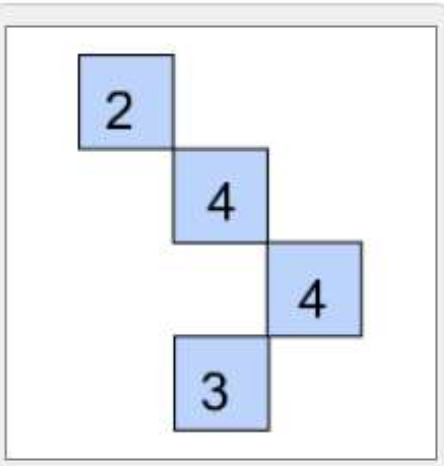
4		3	2
2	4		1
1	3	2	
3	1		2

Which of the following could be used to fill in the gaps?









Question 2 of 20

Previous Next

Jackson wrote down the first four numbers in a sequence:

2, 4, 8, 16

Jackson found the sixth and seventh numbers in the sequence.

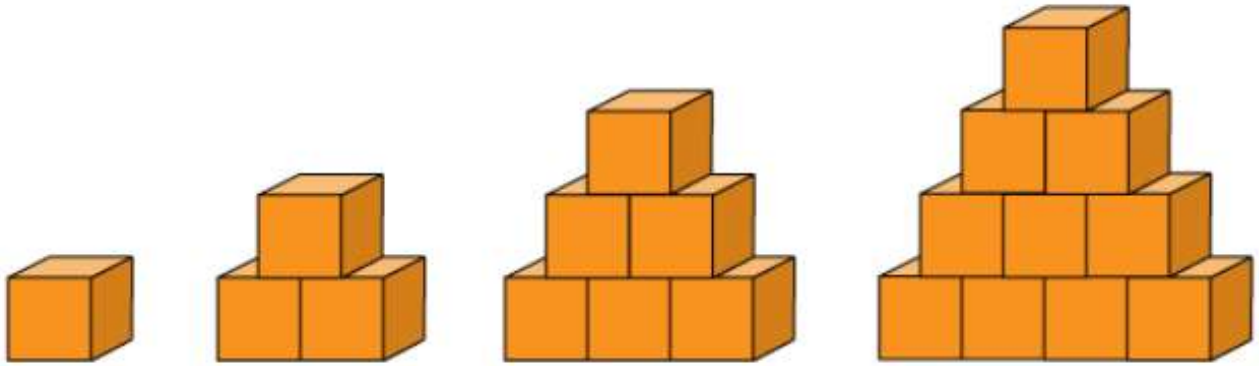
What is the difference between these two numbers?

- 2
- 32
- 64
- 128

Question 3 of 20

Previous Next

Sacha builds a pattern of towers using cubes that have a volume of 3 cm^3 each.



1st tower 2nd tower 3rd tower 4th tower

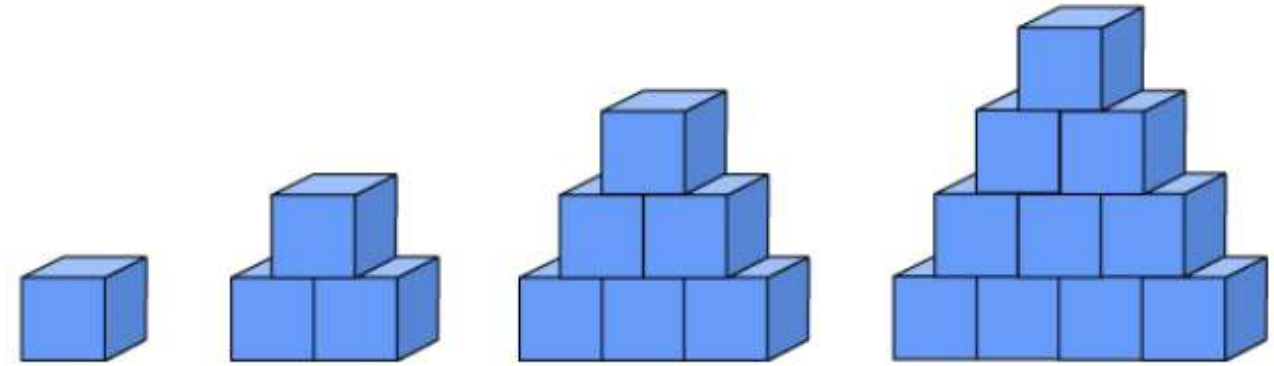
If she continues the pattern, what will be the volume of the 5th tower?

- 39 cm^3
- 42 cm^3
- 45 cm^3
- 48 cm^3

Question 4 of 20

Previous Next

Sacha builds a pattern of towers using cubes that have a volume of 3 cm^3 each.



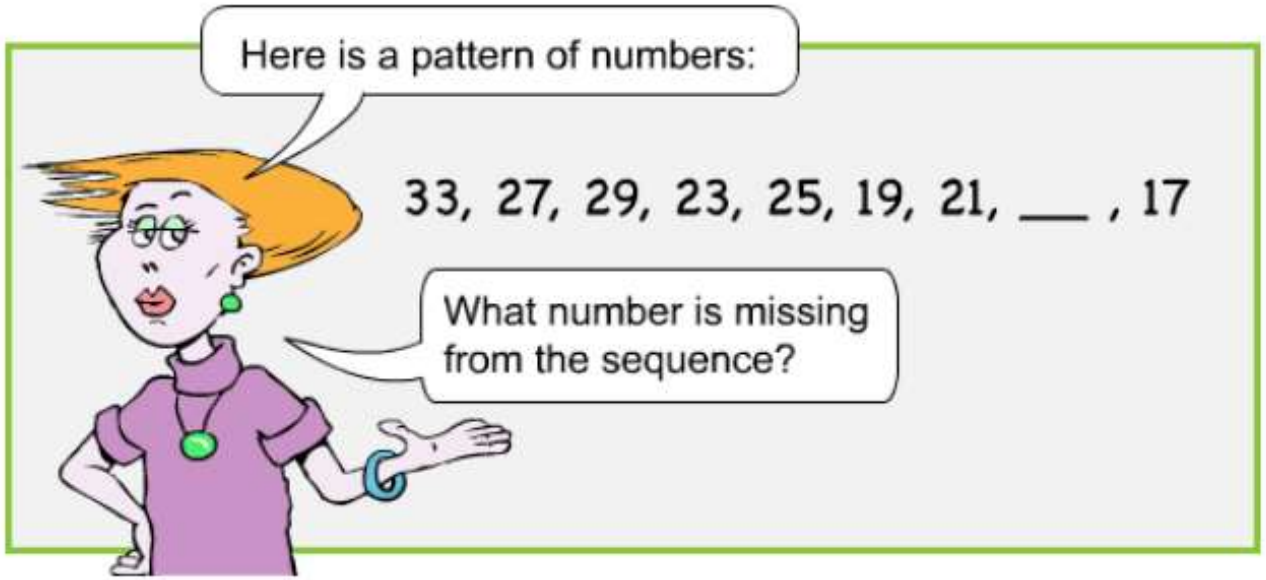
1st tower 2nd tower 3rd tower 4th tower

Which tower has a volume of 84 cm^3?

- 6th
- 7th
- 8th
- 9th

Question 5 of 20

Previous Next



- 13
- 15
- 17
- 19

Question 6 of 20

Previous Next

The numbers in the table follow a particular rule.

Top number	0	2	7	8	11	13
Bottom number	1	11	36	41		66

Which number will complete the table?

- ○ 55
- ○ 56
- ○ 59
- ○ 61

Question 7 of 20

Previous Next

Robyn made this pattern of squares using matches.

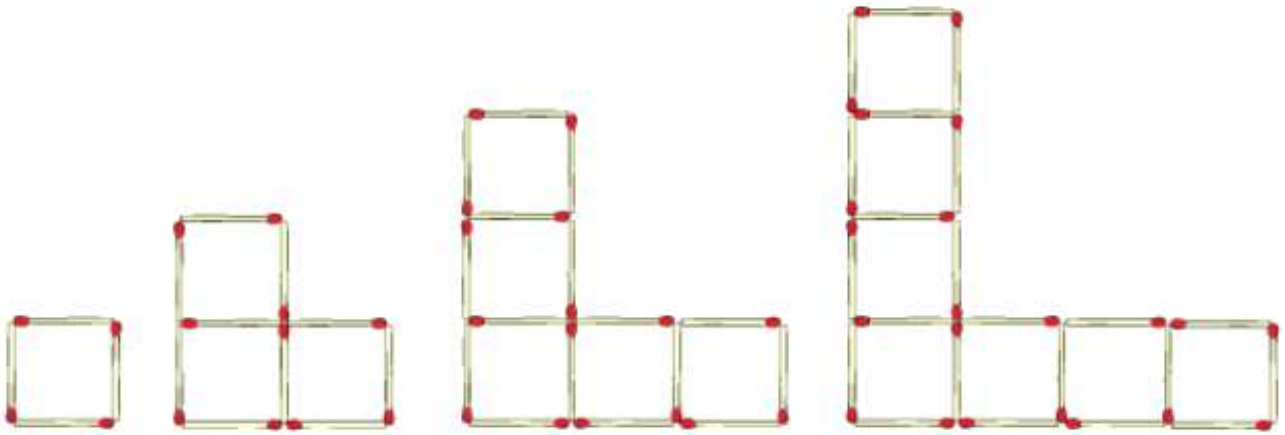


Figure 1 Figure 2 Figure 3 Figure 4

Robyn continues the pattern of squares.

How many squares will there be in Figure 10?

- 19
- 21
- 23
- 25

Question 8 of 20

Previous Next

Robyn made this pattern of squares using matches.

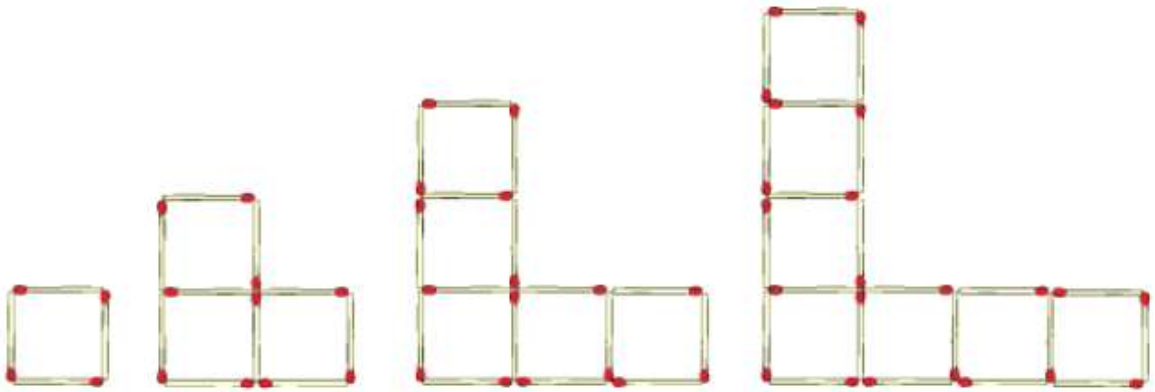


Figure 1 Figure 2 Figure 3 Figure 4

She summarised the information in the table:

Figure	1	2	3	4
Number of squares	1	3	5	7
Number of matches	4	10	16	22

Robyn continues the pattern of squares.

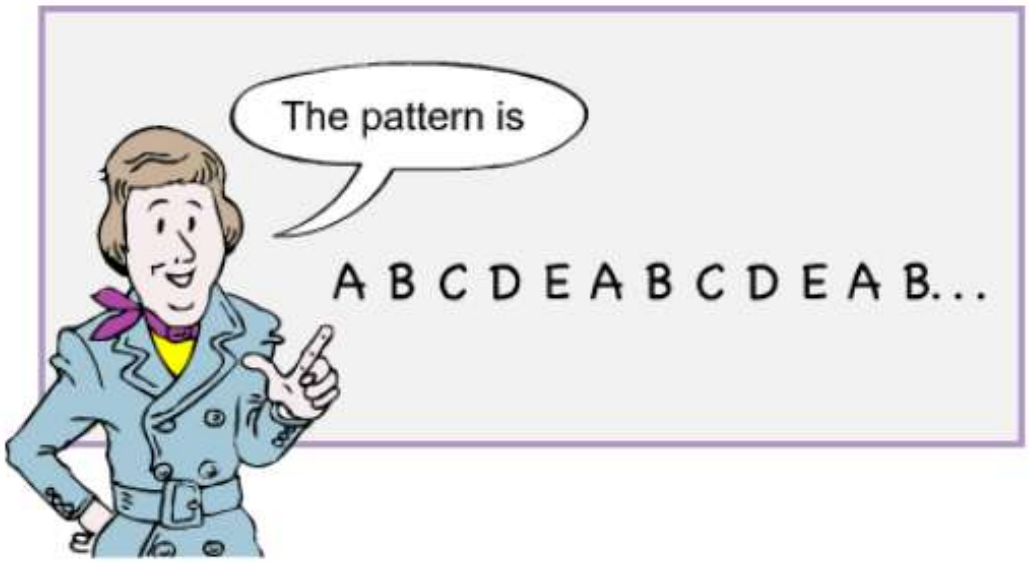
How many matches will she need for the squares in Figure 6?

- 31
- 32
- 33
- 34

Question 9 of 20

Previous Next

The letters A, B, C, D and E are used to make a repeating pattern.

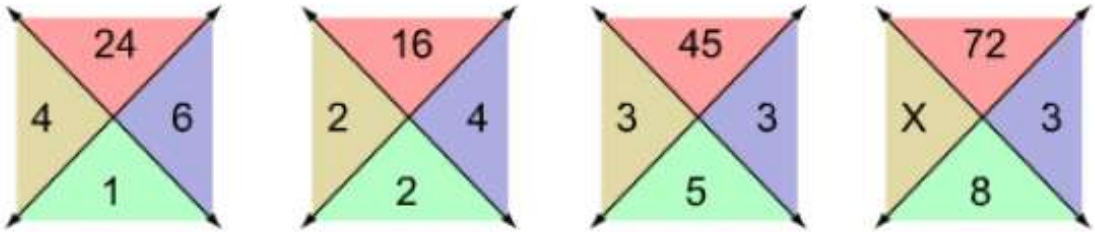


If the pattern continues, what will be the 87th letter?

- A
- B
- C
- D

Question 10 of 20

Previous Next



The four numbers in each of the diagrams have a numerical relationship.

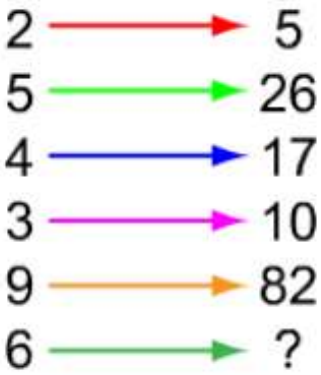
What is the value of X?

- 3
- 4
- 6
- 12

Question 11 of 20

Previous Next

Each number on the left produces the number on the right using a certain numerical process.



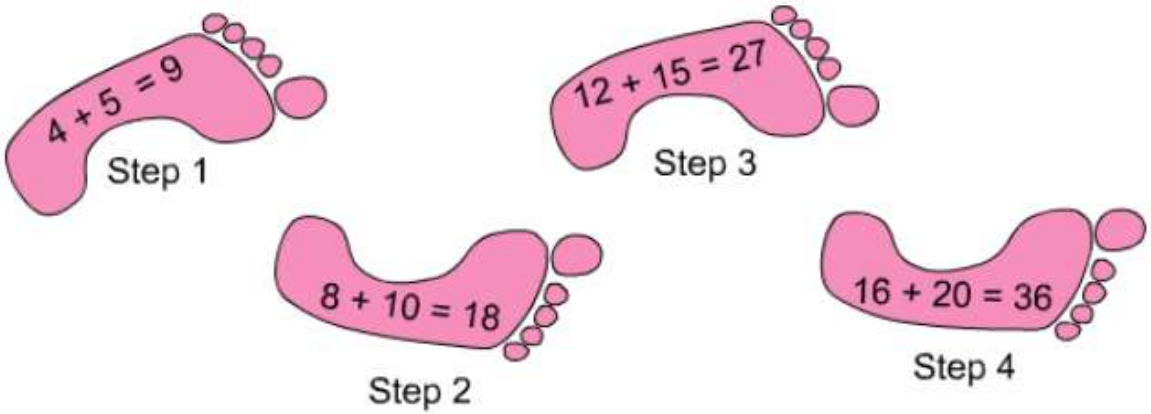
What is the missing number?

- 25
- 36
- 37
- 39

Question 12 of 20

Previous Next

Here are the first four steps in a pattern:



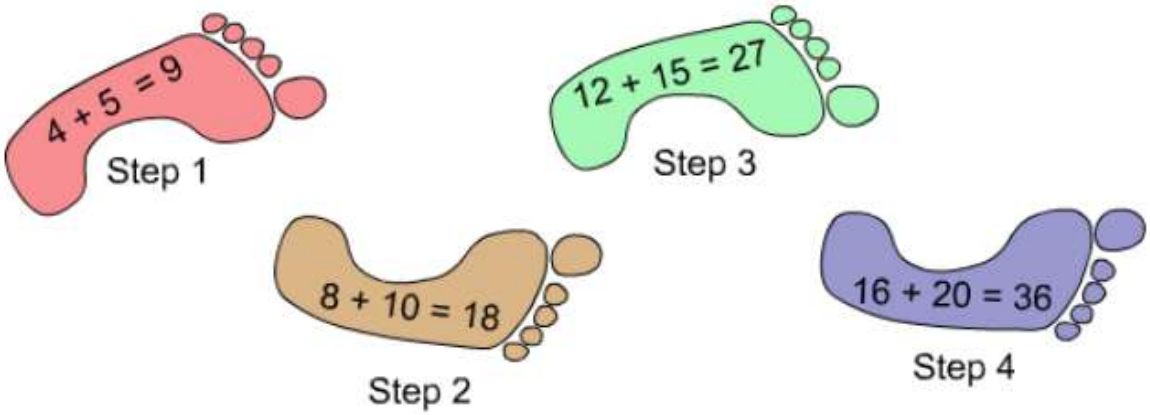
What is Step 12 in this pattern?

- 40 + 50 = 90
- 36 + 45 = 81
- 48 + 60 = 108
- 192 + 300 = 492

Question 13 of 20

Previous Next

Here are the first four steps in a pattern:



Which one of these is a step from the pattern?

28 + 40 = 68

36 + 45 = 81

45 + 55 = 100

36 + 50 = 86

Question 14 of 20

Previous Next

Arnold starts counting at 43.

He counts backwards by 4s.

The second number he calls out is 39.

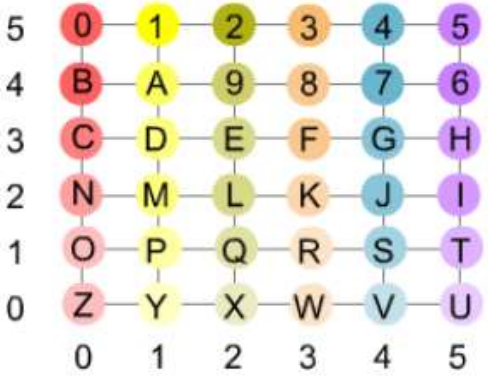
What is the eighth number he calls out?

- 11
- 13
- 15
- 19

Question 15 of 20

Previous Next

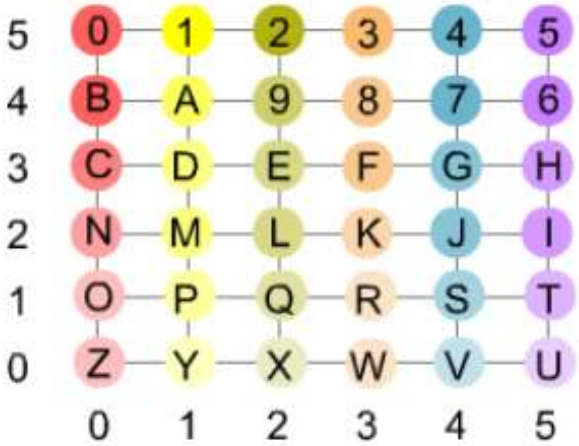
This grid can be used to place words into code. For example, the letter G is (4, 3).



What is the code for the word SMILE?

- (4, 1), (1, 2), (5, 2), (2, 2), (2, 3)
- (1, 4), (2, 1), (2, 5), (2, 2), (3, 2)
- (4, 1), (2, 1), (5, 2), (2, 2), (3, 2)
- (1, 4), (1, 2), (2, 5), (2, 2), (2, 3)

This grid can be used to place words into code. For example, the letter G is (4, 3).



This message is in code.

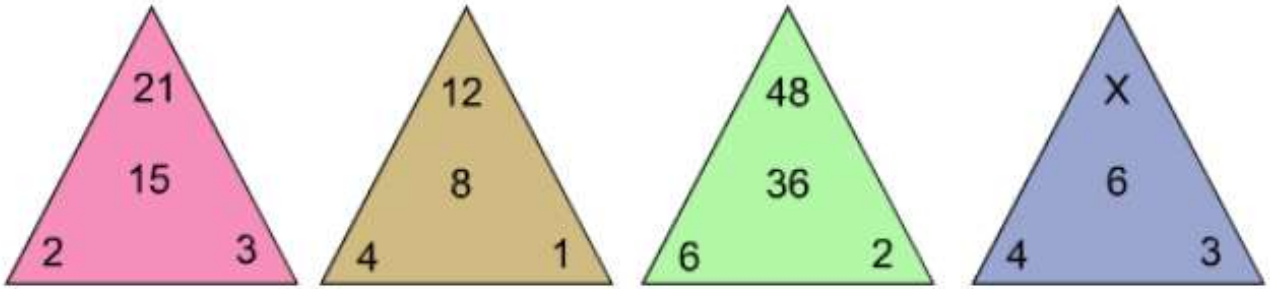
(4, 5), (0, 5) (0, 1), (1, 4), (3, 2) (4, 1), (5, 1)

What does it say?

- 60 ELM ST
- 64 OAK RD
- 46 ELM RD
- 40 OAK ST

BBDCCA
ACBCDA

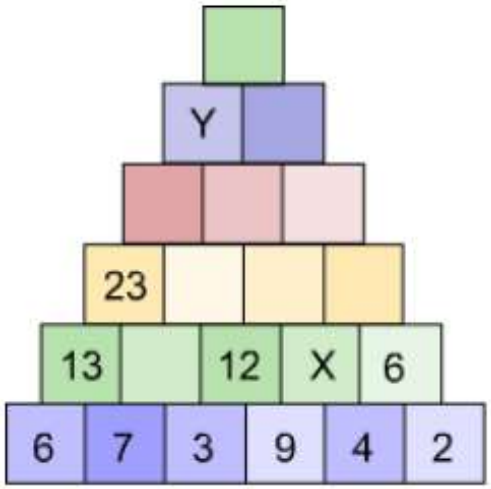
The four numbers in each of the triangles follow a pattern.



What is the value of X?

- 9
- 12
- 15
- 18

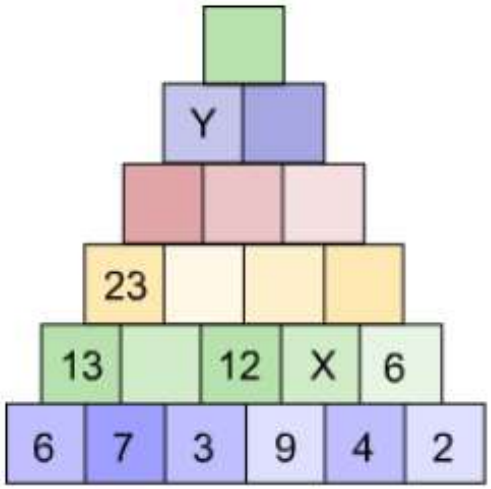
The numbers in these boxes follow a pattern. Some of the entries are missing.



X =

- 10
- 11
- 12
- 13

The numbers in these boxes follow a pattern. Some of the entries are missing.



Y =

- 91
- 92
- 93
- 94

BBDCCA
ACBCDA

Here are three puzzle houses.

The number on each roof is the answer to a number sentence formed with the other three numbers.

What is the value of X?

- 4
- 8
- 12
- 16