

Got It

Stage: 2 and 3 ★★

Got It is an adding game for two players. You can play against the computer or with a friend. It is a version of a well known game called Nim.

Start with the Got It target 23.

The first player chooses a whole number from 1 to 4 .

Players take turns to add a whole number from 1 to 4 to the running total.

The player who hits the target of 23 wins the game.

Play the game several times.

Can you find a winning strategy?

Can you always win?

Does your strategy depend on whether or not you go first?



Factors and Multiples Game

You will need a 100 square grid.

Choose a number and cross it out on the grid.

Then choose a second number to cross out.

This number must be a factor or multiple of the first number.

Continue to cross out numbers, at each stage choosing a number that is a factor or multiple of the previous number that has just been crossed out.

Try to find the longest sequence of numbers that can be crossed out.

Each number can only appear once in a sequence.

Makenzie managed to improve on this with a chain of 55 numbers:

Factors and multiples

Release Screen

reset

55

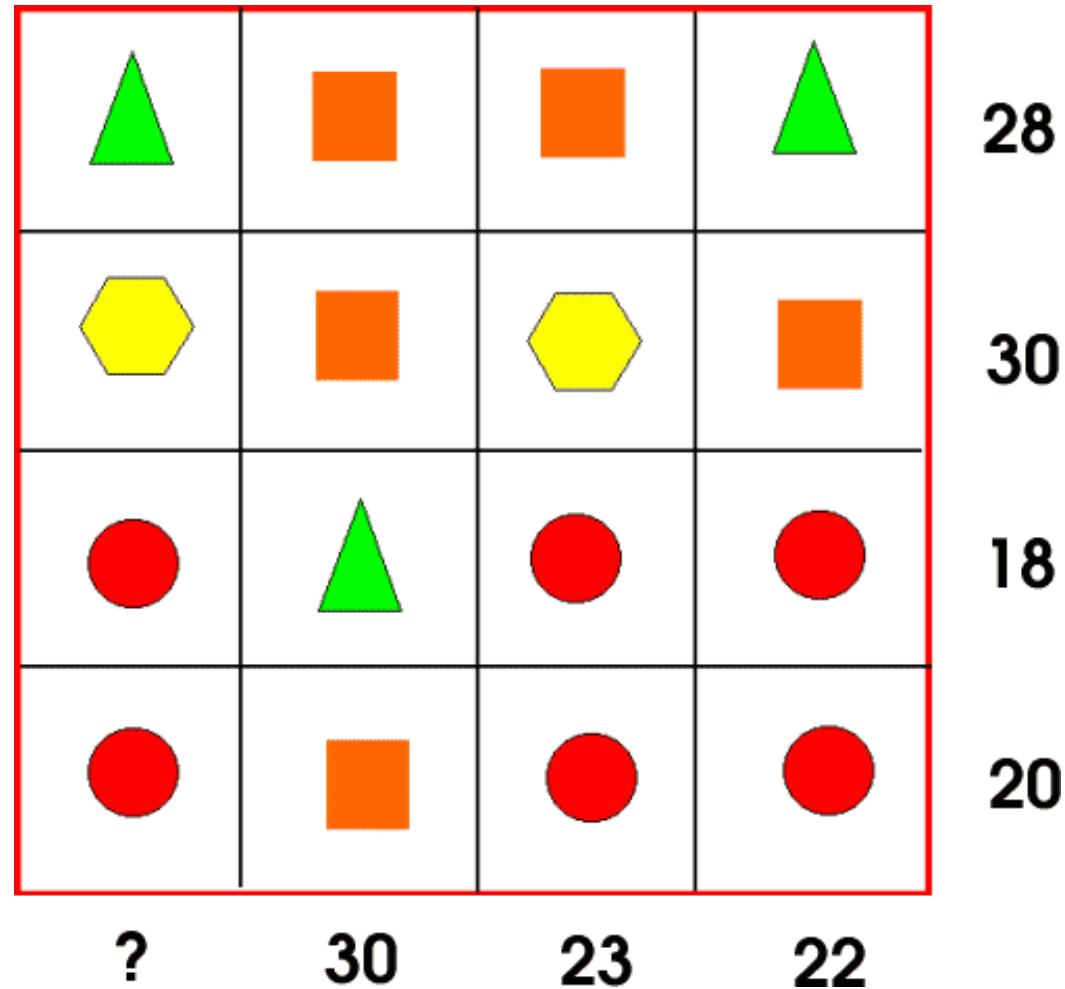
1	5	11	55	2	3	4	6	7	8	9	10	12	13	14	15	16	18	20	21	22	24	25	27	28	29	30	32	34	35	36	38	39	40	42	43	45	46	47	48	49	50	52	53	56	58	59	60	64	66	68	69	70	72	75	76	77	78	79	80	82	83	84	85	86	87	88	89	91	92	93	94	95	96	97	98
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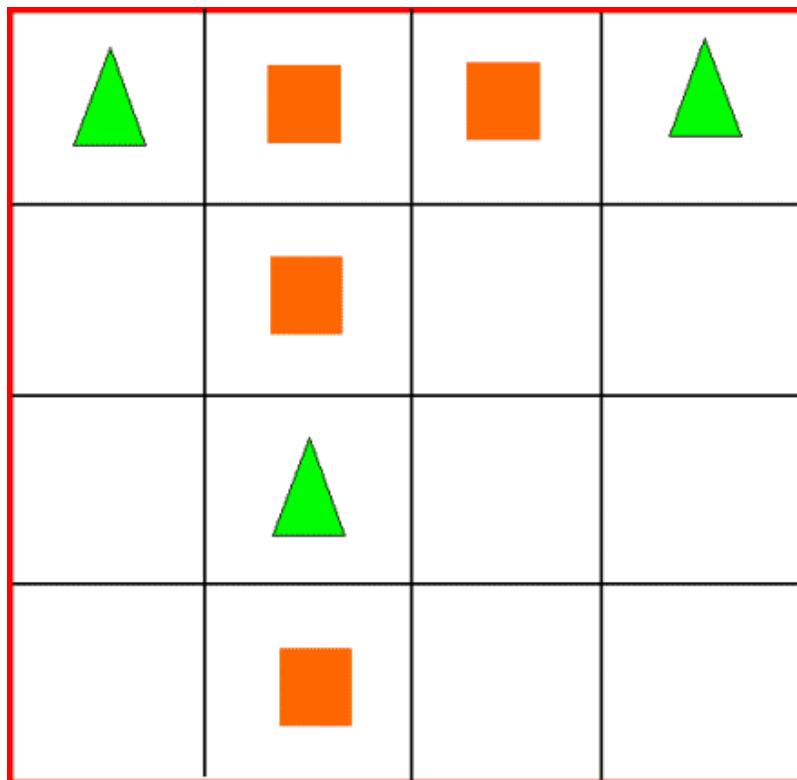
What's it Worth?

Each symbol has a numerical value.

The total for the symbols is written at the end of each row and column.

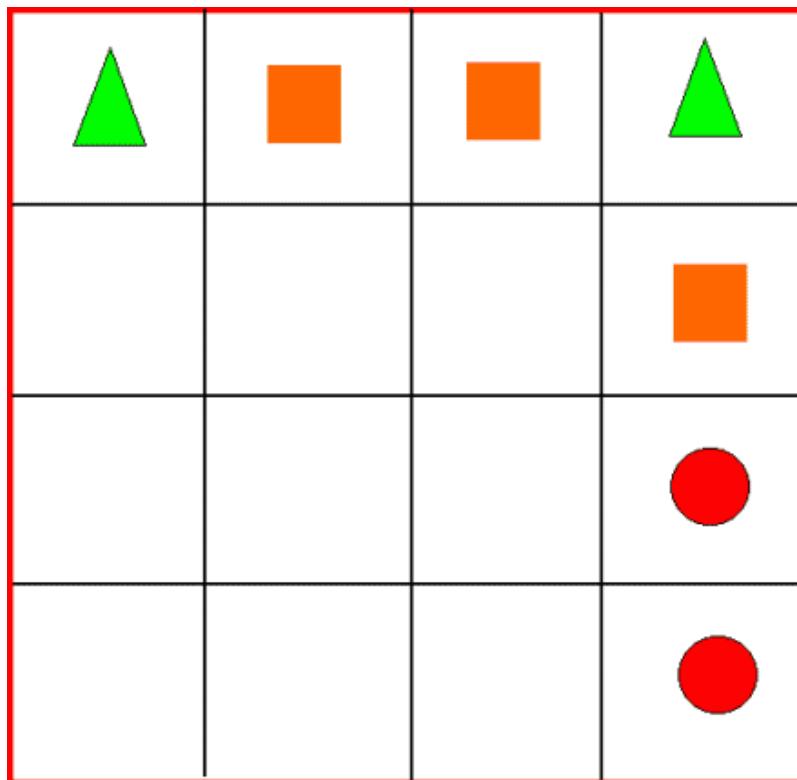
Can you find the missing total that should go where the question mark has been put?





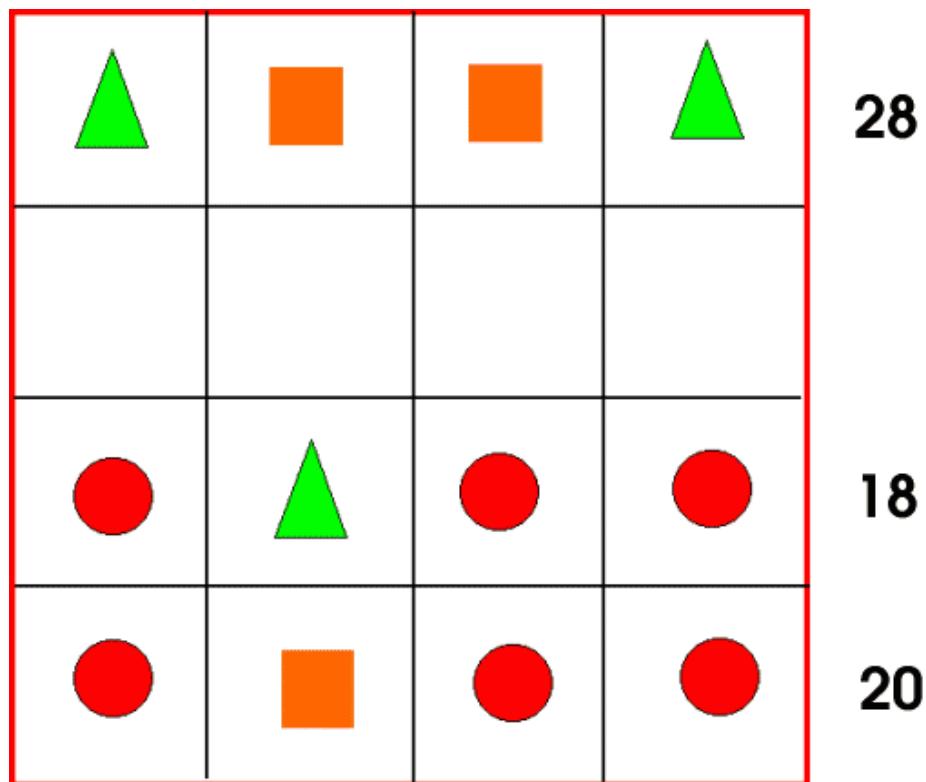
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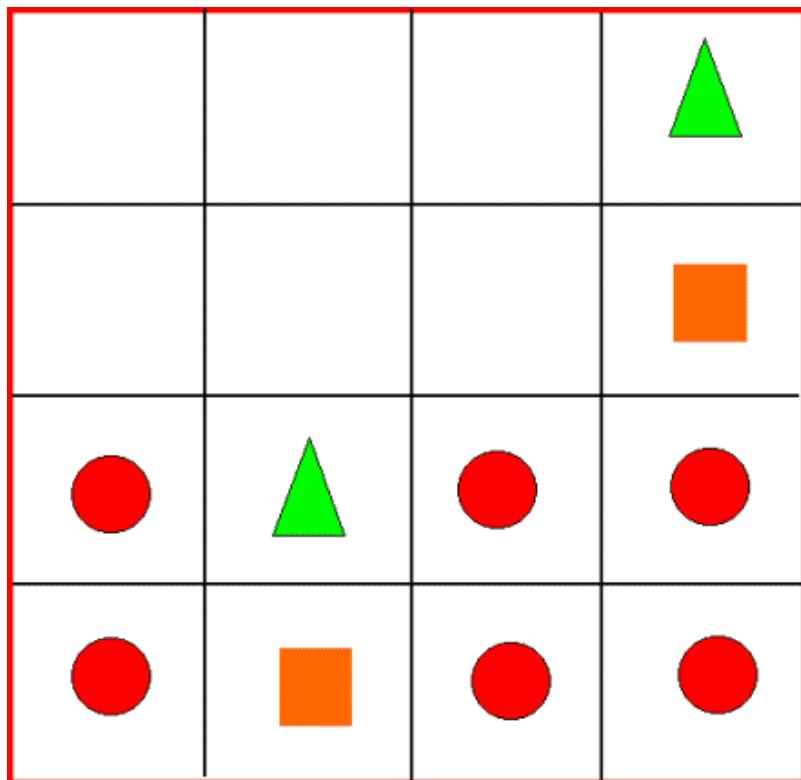
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28

22

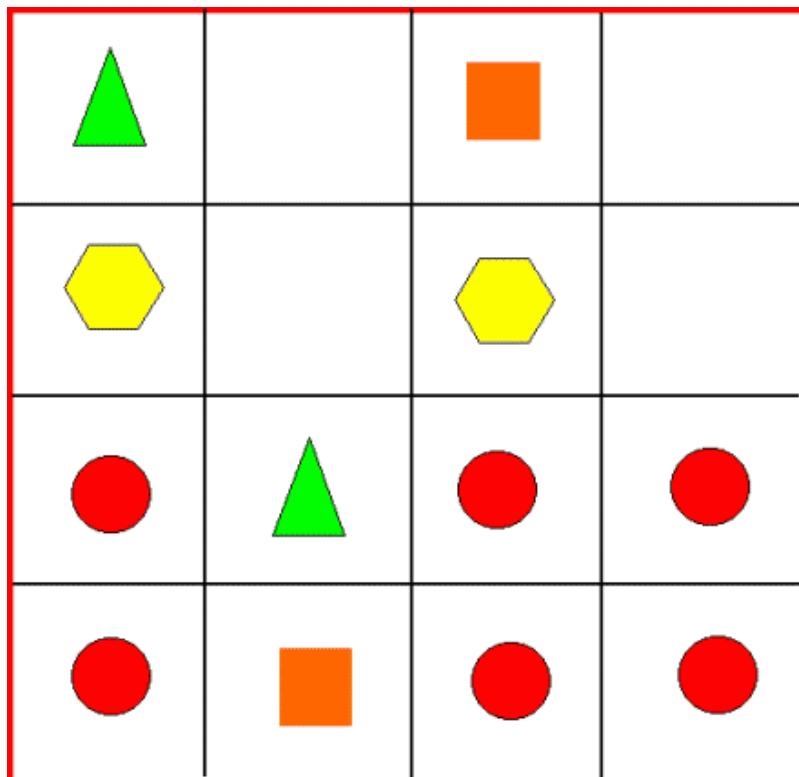




18

20

22

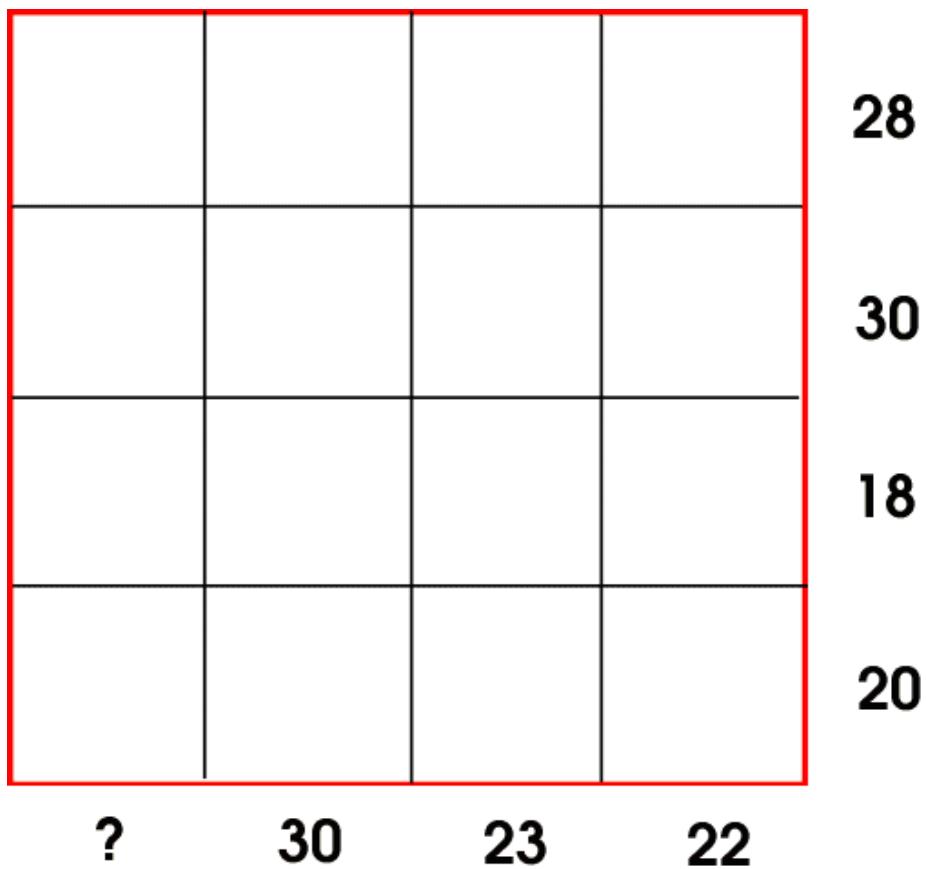


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23

18

20



Reflecting Squarely



In how many ways can you fit all three pieces together to make shapes with line symmetry?

There are more than five solutions to this problem.

How many can you find?

Can you find them all?





Product Sudoku

20			30	
96	324			
			405	3
180				
		600	36	
	2835			
4				