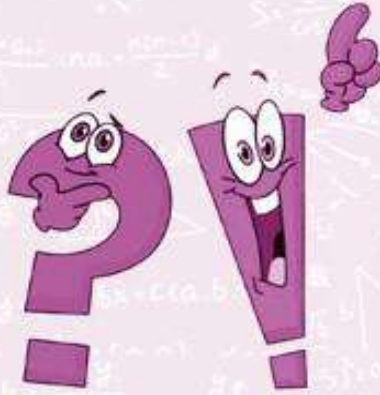
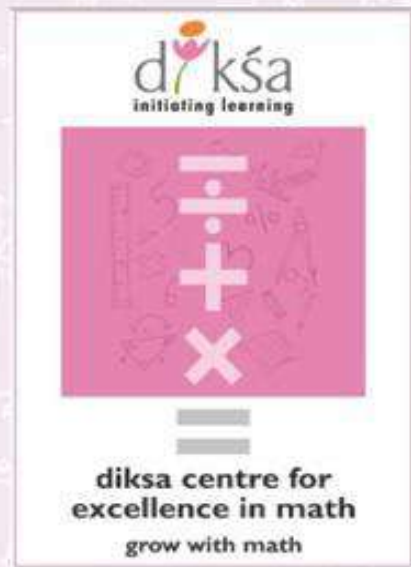


NUMBER PUZZLES FOR KIDS!



CREATED BY
V P ADHISH • V P AASHISH • E GAUTHAM
G DEEKSHITHA • SWATIKAA P

PRESENTED BY



We are happy to present our second e - book '**Number Puzzles**' created by the students of our **grow with math** program.

The puzzles are of two categories, simple puzzles and 'KenKen' puzzles.

They are graded in terms of difficulty.

We hope you enjoy solving the puzzles as much as our students did in creating them.

SUDHA GANESH CHELLA

ANURAADHA JAISHANKAR

NAMAGIRI RAVINDRAN

ACKNOWLEDGEMENT

We wish to acknowledge the guidance and contribution of **Mr.S.Sundaram**, mentor and math advisor to diksa. We thank him for being a constant source of support and inspiration.



My name is Adhish. I am in standard VIII. I like to create number puzzles as it enables me to think and I get different new ideas in mind.



My name is Aashish. I am studying in 8th standard. I love crating number puzzles. It helps me to think more and concentrate well.



My name is Swatika. I study in grade 10. I find solving the puzzles more interesting as I don't know the answers and finding them is exciting. I like creating puzzles too but I miss the mystery that is associated with solving a puzzle as I already know the answers.



I am Deekshitha G. I am studying in 8th standard. I love creating the puzzles than solving. When I create a puzzle, it is mine and it gives me lot of flexibility to try different ideas. I do get a confidence that I made a puzzle of my own.



I am Gautham, studying in class XI. I love creating the puzzles as I know the answers for them. It helps me to think more as I create based on other person's ability.

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INSTRUCTIONS TO SOLVE THE PUZZLES

SIMPLE PUZZLES:

1. Fill the grid with numbers 1 – 4.
2. Make sure no number is repeated in any row or column.
3. Every row and column should contain all the numbers from 1 to 4.

KENKEN PUZZLES:

[How to solve KenKen puzzles?](#)

SIMPLE PUZZLES

1.

	3		1
3			4
2	1		
1		3	

[Answer SP 1](#)

2.

1	2		4
2			
3	4		
		2	3

[Answer SP 2](#)

3.

	3		2
3		2	
4	2		
2		3	

[Answer SP 3](#)

4.

2	3		
3			1
	4		3
4		3	

[Answer SP 4](#)

5.

1			2
3	1		
		1	3
	4	3	

[Answer SP 5](#)

6.

2		1	
	2		1
1		2	
	1		2

[Answer SP 6](#)

KENKEN PUZZLES

1.

3+		10+	4
8+		7+	
3			7+
5+			2

[Answer KenKen 1](#)

2.

1-		1-	
1	3-	1-	1-
		3	
1-			
3	2	3-	

[Answer KenKen 2](#)

3.

6X		4X	
	6X	8X	
16X			
		18X	

[Answer KenKen 3](#)

4.

3X	7+		8X
	2X		
6+		12X	
	6X		

[Answer KenKen 4](#)

5.

9X			2÷
			4
8X	3	24X	
2			3÷
2÷		1	

[Answer KenKen 5](#)

6.

6X	1	12X	
3	12X	1	4X
2÷	3		1
1		12X	4

[Answer KenKen 6](#)

7.

7+	6X	8X	1-
2X		10+	
	5+		

[Answer KenKen 7](#)

8.

3X		6+	
	12X	7+	6+
8X			
	1-		

[Answer KenKen 8](#)

9.

11+			2X
1-			9+
	2X		
1		12X	

[Answer KenKen 9](#)

10.

1-		1	2÷
	3		2
4+	24x		
		3	
		6x	
3			1
3+		4	
2			

[Answer KenKen 10](#)

YOU'VE COMPLETED ALL THE PUZZLES - CONGRATULATIONS!!

ANSWER KEY - SIMPLE PUZZLES

1.

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

[Back to SP 1](#)

2.

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

[Back to SP 2](#)

3.

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

[Back to SP 3](#)

4.

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

[Back to SP 4](#)

5.

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

[Back to SP 5](#)

6.

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

[Back to SP 6](#)

ANSWER KEY - KENKEN PUZZLES

1.

3+		10+	
1	2	3	4
8+		7+	
4	1	2	3
			7+
3	4	1	2
5+			
2	3	4	1

[Back to KenKen 1](#)

2.

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

[Back to KenKen 2](#)

3.

$6X$		$4X$	
3	2	1	4
	$6X$	$8X$	
2	3	4	1
$16X$			
4	1	2	3
		$18X$	
1	4	3	2

[Back to KenKen 3](#)

4.

$3X$	$7+$		$8X$
1	4	3	2
	$2X$		
3	2	1	4
$6+$		$12X$	
2	1	4	3
	$6X$		
4	3	2	1

[Back to KenKen 4](#)

5.

9X			2÷
3	1	2	4
8X		24X	
1	3	4	2
			3÷
2	4	3	1
2÷		1	
4	2	1	3

[Back to KenKen 5](#)

6.

6X	1	12X	
2	1	4	3
	12X		4X
3	4	1	2
2÷			
4	3	2	1
		12X	
1	2	3	4

[Back to KenKen 6](#)

7.

$7+$	$6X$	$8X$	$1-$
3	1	4	2
4	3	2	1
$2X$		$10+$	
1	2	3	4
	$5+$		
2	4	1	3

[Back to KenKen 7](#)

8.

$3X$		$6+$	
3	1	2	4
	$12X$	$7+$	$6+$
1	3	4	2
$8X$			
2	4	3	1
	$1-$		
4	2	1	3

[Back to KenKen 8](#)

9.

11+			2X
4	3	2	1
1-			9+
3	4	1	2
	2X		
2	1	4	3
1		12X	
1	2	3	4

[Back to KenKen 9](#)

10.

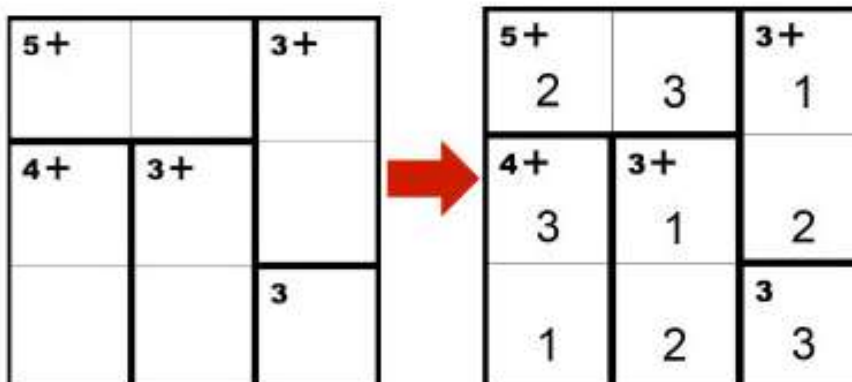
1-		1	2÷
4	3	1	2
4+	24x		
1	2	3	4
		6x	
3	4	2	1
3+		4	
2	1	4	3

[Back to KenKen 10](#)

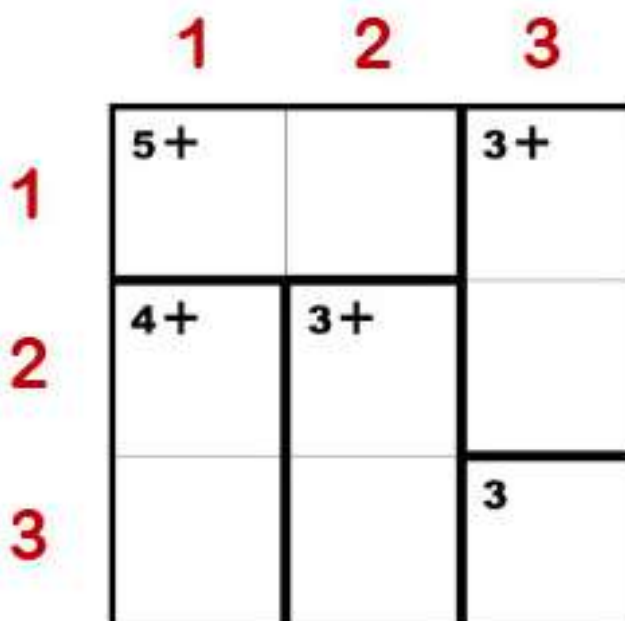
HOW TO SOLVE KENKEN PUZZLES

Courtesy - <http://www.kenkenpuzzle.com/>

Your goal is to fill in the whole grid with numbers, making sure no number is repeated in any row or column.

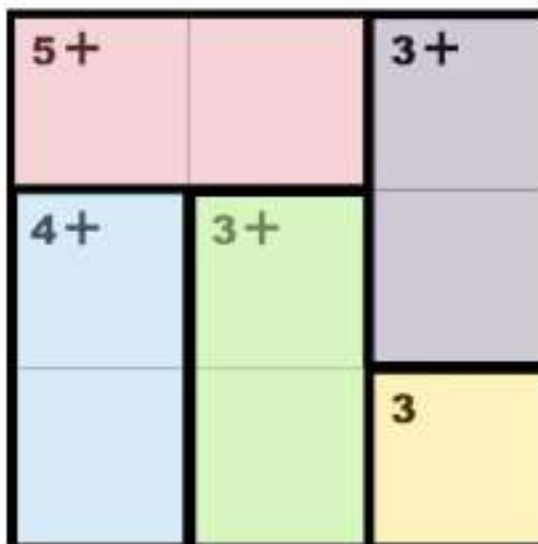


In a 3x3 puzzle, use the numbers 1 – 3.



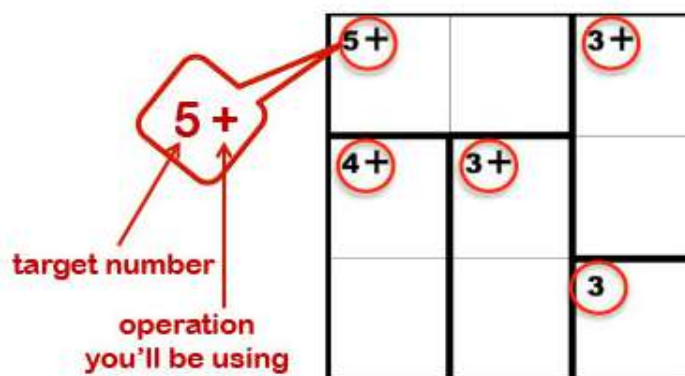
In a 4x4 puzzle, use the numbers 1 – 4.
In a 5x5, use the numbers 1 – 5, and so on.

The heavily-outlined areas are called
“cages.”

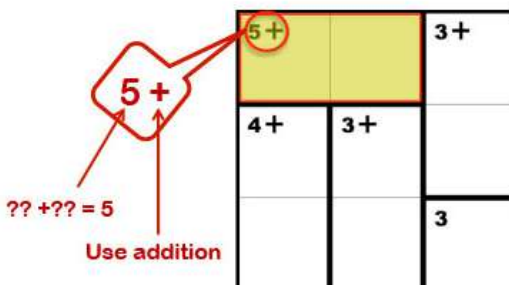


This puzzle has 5 cages.

The top left corner of each cage has a “target number” and math operation. The numbers you enter into a cage must combine (in any order) to produce the target number using the math operation noted (+, -, ×, or ÷).



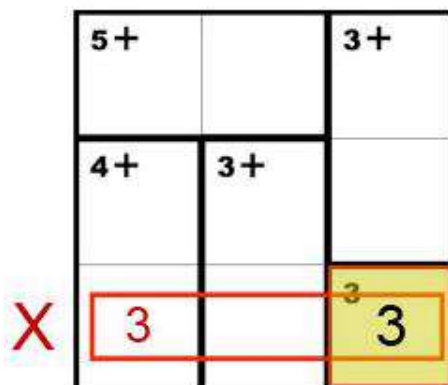
In this cage, the math operation to use is **addition**, and the numbers must add up to **5**.
 Since this cage has 2 squares, the only possibilities are 2 and 3, in either order ($2+3$ or $3+2 = 5$).



A cage with one square is a “Freebie”... just fill in the number you’re given.



A number cannot be repeated within the same row or column.



LET'S BEGIN!

1. Enter a 3 in the Freebie square. It's always best to begin with your Freebies.

5+		3+
4+	3+	
		³ 3

2. The lower-left cage must be filled in with a 1 and a 3 in order to equal 4. The 3 must go in the top square since the bottom row already has a 3 in it. That means a 1 must go in the square below the 3.

	5+		3+
1	⁴⁺ 3	3+	
X 3	1		³ 3

3. Each row and column must have a 1, 2 and 3 in it. The bottom row already has a 1 and a 3, so a 2 belongs in the middle square. The same logic can be used for the leftmost column.

5+ 2		3+
4+ 3	3+	
1	2	³ 3

4. Enter a 3 in the top middle square so that the 5+ cage at the top totals 5 using addition. Then, enter a 1 in the center square so that the middle column has all 3 numbers, and because $1+2=3$, satisfying the bottom middle cage.

5+ 2	3	3+
4+ 3	3+ 1	
1	2	³ 3

5. You can now put a 1 in the top right square and a 2 below it because they are the only unused digits in their rows...AND because $1+2=3$, satisfying the top right cage. Voilà...you're now ready to play KENKEN!

5+ 2	3	3+ 1
4+ 3	3+ 1	2
1	2	³ 3

START SOLVING NOW