

## Accolades:

2020 KENKEN UAE NATIONAL CHAMPION

2019 KENKEN WORLD CHAMPION

2018 KENKEN WORLD CHAMPION - SECOND RUNNER UP

2017 KENKEN INTERNATIONAL PARTICIPANT  
(REPRESENTED UAE)

## Contact:

Jeff John Sunil

Dubai, UAE

Email: [jeffjohnsunil@gmail.com](mailto:jeffjohnsunil@gmail.com)

Web: [www.jeffjohnsunil.com](http://www.jeffjohnsunil.com)

# My KenKen Journey (2016-2020)

**KEN 算 KEN**  
Puzzles That Make You Smarter



**BY**  
JEFF JOHN SUNIL

# Table of Contents

Prologue .....	2
Chapter 1 – Solving KenKen - The Basics .....	4
Chapter 2- The Mistakes .....	7
Chapter 3 – My KenKen Journey.....	10
Chapter 4 – KenKen Advanced Tips.....	16
Chapter 5 – The System.....	18
Chapter 6 – Epilogue – A bit more about KenKen.....	19
Chapter 7 – Extra Puzzles & Solutions .....	20
Chapter 8 - Acknowledgement.....	24

# Prologue

## Mathematics in a ‘New World’

This world is ever-constantly changing. The workforce demands jobs requiring more skills. Sometimes, it can even lead to replacing jobs, with robots. Now, these jobs range from changing society to becoming a cashier. But one thing is for sure.

### “IT ALL REQUIRES MATHEMATICS”

Mathematics is becoming an increasingly important asset when it comes to considering a man for the job. Pretty much every job demands it. Hence, it’s very important to have a good ‘math mind’ as soon as possible. But what does KENKEN have to do with this?

---

$$KENKEN = MATHS * PUZZLE + (SPEED + ACCURACY)$$

---

The human mind loves puzzles. Our minds are constantly evolving, and as our brains triple in size and gain more features, it itches to be in the real world, to have something to occupy it for the moment. To struggle and solve a challenge. The satisfaction of solving a challenge makes us feel extremely good.

Well, KenKen is the new and improved puzzle that evolved from Sudoku. It is a combination of mathematical operations and requires great speed and accuracy.

"Ken" means "Wisdom" or "Cleverness" in Japanese, so KenKen is "Wisdom Squared" or "Cleverness Squared", as it is twice.

It improves mental maths skills and improves accuracy a lot! But sadly, it's not so popular in the world but is catching on.

KenKen was created in a Japanese Classroom in 2004 by Tetsuya Miyamoto, a math teacher. It was designed as a fun activity for the children of the class.

Miyamoto-sensei's goal was to educate and improve his students' mathematical skills. Little did he know that this puzzle would escape from his classroom and become a worldwide sensation.

So, are you ready?

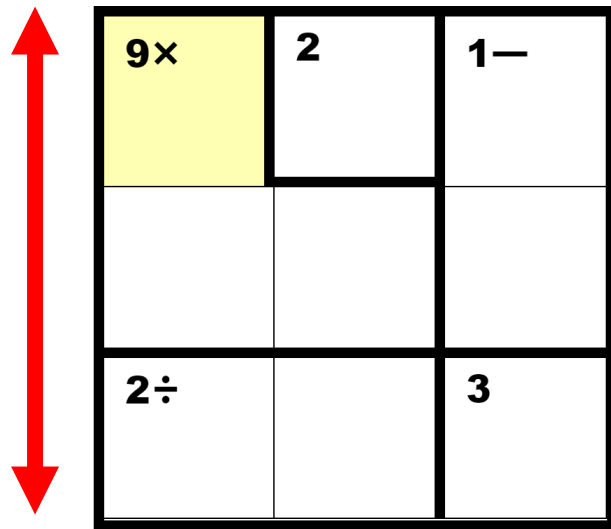
C'mon. There's math to be done.

# Chapter 1 - Solving KenKen- The Basics

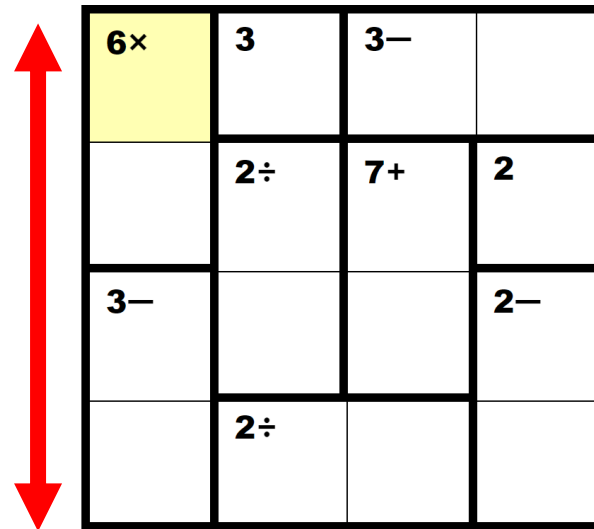
At its core, KenKen is a simple, yet logical puzzle. Here are the rules of this puzzle:

Each puzzle consists of a grid, divided into small, bold, square sections.

A number must be written in every box. If you have a 3x3 puzzle, you must use all the numbers from 1 to 3. For a 4x4 type of puzzle, you must use the numbers from 1 to 4 and so on...



3 BOXES, SO THIS IS A 3x3



4 BOXES, SO THIS IS A 4x4

There should be no duplication of numbers in any row or column.

<b>9×</b> <b>1</b>	<b>2</b> <b>2</b>	<b>1−</b> <b>3</b>
<b>3</b>	<b>2</b>	<b>1</b>
<b>2÷</b> <b>2</b>	<b>1</b>	<b>3</b> <b>3</b>

REPITITION OF NUMBERS ARE WRONG

<b>9×</b> <b>3</b>	<b>2</b> <b>2</b>	<b>1−</b> <b>1</b>
<b>1</b>	<b>3</b>	<b>2</b>
<b>2÷</b> <b>2</b>	<b>1</b>	<b>3</b> <b>3</b>

CORRECT GRID

In each grid, groups of squares are heavily highlighted. These are called cages.

<b>9×</b> <b>3</b>	<b>2</b> <b>2</b>	<b>1−</b> <b>1</b>
<b>1</b>	<b>3</b>	<b>2</b>
<b>2÷</b> <b>2</b>	<b>1</b>	<b>3</b> <b>3</b>

THE ABOVE IS A CAGE

At the top-left corner of each cage is a small number, with a mathematical operation. The numbers in that cage should match up with the number in that corner (it's called a target number), by using the mathematical operation shown next to it. Note that the numbers can be written in any order. If there is no symbol, just write the number in the corner.

TARGET NUMBER

9x 3	2 2	1- 1
1	3	2
2÷ 2	1	3

There is no operation, so fill in the number in the corner (3)

A number may be repeated in a cage, so long as that number is in a different row/column.

9x 3	2 2	1- 1
1	3	2
2÷ 2	1	3

In the cage (ref. no.xx) , the number 3 is repeating, but 3 itself is not repeated in any row or column.

There is only one solution to every puzzle. So, take care, and start solving!!

If you think you got it, try out your skills on the puzzle below:

5+		1-
3÷		
2	3÷	

# Chapter 2 – The Mistakes

If I could categorize and label every single mistake that I have seen a KenKen solver doing at least once, this book would never end. It would stretch on and on, maybe even to the end of the universe (Just kidding...)

It just goes to show that with anything, practice makes perfect.

Now, if I could categorize and label every single mistake that I have seen many KenKen solvers doing repetitively, I believe it would fit in for maybe 5 pages. So, here are the top 3 mistakes that I have seen, and loathed, on my journey.

## The Guesser

Once, one of my friends at school needed my help. He was a great fan of KenKen and solved many, many puzzles, much more than I did. But he was frustrated that he was not showing much progress.

He asked me what to do. I asked him to come to school the next day with one puzzle of his own choice.

The next day, I looked over his shoulder to see what he was solving, and what I saw shocked me.

He was erasing everything that he had written and was blindly writing new combinations everywhere. I stopped him and told him about it. He was shocked.

“Really?! I thought that only helped me, as it was helping me to eliminate the possibilities of each cage,” he said.

That may be true, but the thing is –

“Bro, that is going to take a lot of time to solve, as there is an average of about 100 possibilities that you can write down in each puzzle,” I replied. “It’s not going to help you, but rather hinder you.”

My friend started nodding in understanding.

“Also, not to mention the fact that you can’t even see what your writing anymore, due to the number of times you’ve overwritten.”

I pointed to his sheet for emphasis, which was by now so overwritten, that I couldn’t see what was currently written in the boxes. Also, the paper was torn due to the force he exerted on it.

Then, he took the effort to reduce the number of times he did guesswork, and his timing rapidly decreased.

Often, a solver will try and guess the order of numbers in a cage, as with the numbers themselves. This is wrong. In this book, if these mistakes made hell, then this type would be the hell angels. This method will almost always lead you to many dead-ends. There is only 1 solution to each puzzle and can only be reached through pure logic and elimination of possibilities.

---

*Tip: Don't write anything in any cage, unless you are absolutely certain that there are no other possibilities.*

---

## The Fake Visualizer

Once, a man called his friend Bob. Bob was suffering from extreme health issues and needed help. His problem was that he was planning to run 3 times every week but couldn't do so, due to some other issues.

"Why not run once a week," the man asked.

"Once a week? What's the point," Bob replied.

In this example, Bob would rather dream about running for 3 weeks, than actually running once a week. The former is the more glamorous option but gets nothing done and will leave Bob with no change.

The latter, however, will leave Bob with less fat and a healthier body.

I feel this is a perfect analogy to the fake visualizer.

How often have I seen people celebrate too early because they think they can already see the solution in their minds and are rushing forward to print it out on their paper.

Most of the time, it's wrong, because solvers are visualizing a path, instead of following it. It only deceives but does not lead. I admit it is a mistake that even I have fallen prey to. But, unlike growing out of it, I used it to my will, which I will explain later.

---

Tip: The lesson is – even if you are on the right path, time will run over you if you just sit there.

---

## The Candidate

This is an example I hate to include, but I have to do so.

Now, imagine you're driving a car. The car is running low on fuel. You realize that to keep driving, you have 2 options:

- Keep driving, and hope that you pass a gas station.
- Pullover and keep walking until you can see a gas station.

Now, you keep on driving, because you can't decide between the options. Now, the car has run out of fuel, but you still don't notice, because you are so engrossed in deciding what to do. Finally, night falls, and you are stuck where you are, with no chance of help.

Welcome to candidates...

In KenKen, when we write the combinations of each cage on its right-hand corner, those are called candidates. They are called so, because you are choosing the best option, or you are choosing candidates.



---

*Tip: I hate candidates – they are the worst decision you could possibly make, when you are solving KenKen .*

---

Okay, maybe I am exaggerating a little bit, but candidates are extremely bad. Like the example I mentioned above, they are useless and only help in wasting time. In the end, you're stuck with a puzzle mocking you for all your time wasted.

Candidates are only suitable for 3 people:

Beginners, though it should be grown out of in later times.

Experienced players who are stuck in such a mess, that they are forced to use it.

Very experienced players, who can write so fast, that the extra time doesn't matter to them.

Otherwise, it should be shunned and ignored.

So, now that you know the common mistakes, and how to avoid them, it's time to move on.

# Chapter 3 – My KenKen Journey

For me, my KenKen journey started when I was in the 3rd grade, in 2016. At the very beginning of the school year (for us in Dubai, school starts in April), we got an official flyer from our class teacher, as well as a small booklet.

I remember them very well. They smelled so nice too.

I read the flyer, and it was something about mathematical sudoku. I didn't think much of it at that time.

In the booklet, there was a lot of instructions on how to solve KenKen, and there were some mock puzzles to solve. I remember how long it took me to truly understand the rules.

I went over the flyer with my mom, and she noticed something that I didn't even pay attention to.

A website link...

We checked this website, and it turned out that it was a competition. Our school would host one round, then those who passed that round would go on to battle against each emirate (that's a state for us). Those who passed that round would compete against the entire UAE. From that round, the fastest person who solved 6 puzzles correctly would represent the UAE in an international round.

I remember looking at that website and thinking, no way, man. This can't be for me.

I was young and inexperienced. To think I had a chance to compete against giants was impossible. But the thing was, I would not be competing against everyone, but only the people from my age group.

That made me much more assured. Mom asked me if I wanted to join and I said yes.

Then, preparation began.

I worked like a donkey. Every day, even in the summer vacation, I worked hard.

But then came the first hurdle.

It turns out, I didn't read the rules properly. This one rule, which I didn't pay attention to:

At the top-left corner of each cage is a small number, with a mathematical operation. The numbers in that cage should match up with the number in that corner (it's called a target number), by using the mathematical operation shown next to it. Note that the numbers can be written in any order.

So, all that hard work was wasted. I remember the anger I felt, all the time I wasted, all for nothing.

I went to the exam hall in my school, ready to get myself defeated.

Agas passed, or maybe it might've been 2 weeks.

Then, an email came. It was from KenKen. I knew what it would say, so I didn't even bother to tell my mom.

The next day, I thought to at least check my doom.

But it wasn't. It was an email saying that I passed the School round.

I remember running out of my school with utter joy. This is it! I passed!

I couldn't believe it, and neither could my mom. We celebrated for the entire day and even went out for ice-cream.

After that, the Emirate round came. But I was prepared.

I passed it, no problem.

And then, the second hurdle came.

For the school and emirate round, I was lucky because time did not matter. You only had 30 minutes to solve everything, but they did not judge you based on how fast you solved the puzzles, but whether they were right or wrong.

But for the national round, speed mattered. I knew I had to become faster in solving KenKen to win. So, I stayed up for hours every night, devouring KenKen books, making my tactics along the way.

Finally, the day came. We were going to a huge exam hall, which held more than 200 students.

To register a solver's time, he had to hold up a card, which was placed next to him. One of the arbiters would see it, or one of the cameras would, and it would register the time taken by that particular person. Then, that person was to close his booklet in which the puzzles were printed, and never open it again.

After that day was over, I came out, satisfied that I had done my best.

And one month later, email time.

My mom closed her eyes, said a quick prayer, and opened the file. And, she screamed.

***I GOT AWARDED – 3<sup>RD</sup> PLACE!!!!***

That was a very good day, and it marked the beginning of death. The death of my doubt.

I now knew that I could do this very well. I only lost by a matter of seconds, which meant that I could do better if I grew faster.

And, I eventually did.

## **Next Year : 2017**

Next year. Next category. Next game.

After getting 3rd in the last year, I was determined to win this year. The feeling that I was so close brought me not only sadness but determination.

The rounds went like a cakewalk this time. I made sure to channel all my resources and time into the national round because it was the hardest.

School and Emirate level passed. No sweat.

Then came the National round. This time, I worked as an elephant, inventing new tactics along the way.

Exam time. A little nervous, but still ready. I gave it my all, and a month later...

I was expecting 2nd place, but I underestimated myself.

The email came. My mom opened it, and she screamed, so loud, that people thought it was a fire alarm.

I won 1st place. Little ol' me became the best solver in the UAE within my age group.

I was so excited, I literally fainted with shock.

I was going to go to NEW YORK!!!

While I was having my winter break in the UAE, I was preparing for the trip. Every day I was doing 50 sets of 6 puzzles.

Also, I was packing up for the trip. That one. The one in which I was going to New York.

We flew there on the 17th of December 2017. We stayed in a hotel in White Plains, which was close to the Tennis – Table center in which the competition was being held.

Yes, the competition was held at the Wimbledon Tennis Club. Why you may ask? Well, Will Shortz, the table-tennis player, loves KenKen and thinks of it as an intriguing puzzle that's worth your time. He owned the Wimbledon Tennis Club, and since he was such a big fan of KenKen, he was willing to make his tennis club the venue.

In fact, he published the puzzle in the famous newspaper, "The New York Times".

Still, before the competition, there was no relaxing. Every day, I practiced.

Then, finally, the day came.

During the competition, there were 3 rounds. Each round got harder and harder, each delivering bigger sized puzzles.

1st round. 2nd round. 3rd round. All went by in a flash.

When the time for results came, I held my breath and waited.

I didn't win.

One of our other guys from UAE, won my age category, Delta.

When we got the reason why I didn't win, my heart broke.

In the hurry to finish the puzzle, I just forgot to write 1 number. That's it. Otherwise, I would have tied with that guy as the winner.

Only because of a silly mistake, I lost the championship. I was heartbroken...

My family and I went home with heavy hearts. You would've expected my parents to get angry at me, but no.

They shared my suffering. And they helped me get over the loss. I am greatly indebted to them, not just because they comforted me, but they got me back up for next year.

This is a wonderful life lesson. No matter what happens to you, you should always get back up and go again.

And that's what I did.

I remember the first thing that I did, was to open up my small stash of biscuits and start gorging on them, THE WHOLE NIGHT.

Nope, I'm not kidding. For the whole night, I was munching on those biscuits.

We stayed in New York for a few more weeks, and even with this loss, I was able to enjoy a lot. We kept switching hotels, even staying at Times Square. It was so beautiful, with many, many billboards and neon signs all over the place.

We had to stay in New York even for Christmas (not that I'm complaining). We visited many famous landmarks too, including the Empire State Building, St. Patrick Church and even the Statue of Liberty.

We stayed in New York until the 27th of December, after which, we returned to Dubai.

## **Next Year : 2018**

Again, next year. 2018, to be precise.

I had now moved up the ranks into category 3.

After losing in the last year, I was determined to win this year. The feeling that I was so close, and lost only by a silly mistake, brought me the determination I needed to do better this time.

I worked hard and hard, every day. Birthday, Children's Day, all the time. Nothing mattered now. I had a dream fueling me.

This time, I was less nervous about the National Round, since I proved that I could pass it.

School Level, Emirates Level, even the National Level! All went by without stress.

And then came the International Round.

Actually, I forgot to mention this in the previous chapters, but the flight to New York was actually free. For me, anyway.

My parents still had to pay.

We even got 1500 AED as a prize for becoming the national winner (that's about \$500).

This time, absolutely nothing changed.

Honestly, this time 'round, there was absolutely no change, even in the venue

1st round, 2nd round, 3rd round. Pretty much the same, down to the very puzzle sizes.

So, I won.

That's right! I won the International Round with ease!!

Okay, I'll admit, this time, I won only in my age group.

After this, I qualified for the Champion of the Champions Round. 3 people, 1 from each age group, would be competing for the ultimate title, which is the Champion of Everyone Under 18. And also, I was literally the smallest amongst us 3.

We had to solve a 7x7 puzzle, meaning that I had to use the numbers from 1 to 7.

So, I don't think it was a huge surprise for me to have lost.

**BUT STILL, IT WAS HUGE FOR ME!!**

After this, I just knew that fate would obviously pull me down.

After all, that's technically what happens to all of the cartoon characters, right?

The character has to fall down harder before actually winning, right? Well, my fall already came (last year).

So, if fate could talk, it could summarize everything it wants to say with only 1 word:

"NOPE".

## **Final Round : 2019**

This is it. 2019.

Last year, I knew that I lost not because I made a mistake, but because I didn't know how to solve a 7x7.

Again, the School Level and the Emirates Level went by without stress.

For the National Level, I didn't have much stress. But, when I saw the bigger number of kids who passed, I changed my stance.

My throat went dry, and my knees became wobbly.

A nervous thought entered my mind, "Will I make it this time?"

Luckily, my fears went unjustified, and I passed the National Round.

And then came the International round.

Again, the result was that I won in my age group and went on to the Champion of the Champions round.

Before, I knew that I was going to lose. After all, I was competing against older people. 3 people, 1 from each age group, would be competing for the ultimate title, which is the Champion of Everyone Under 18. And also, I was literally the "middle kid" amongst us 3.

Well this time:

## **I WON THE WORLD CHAMPIONSHIP!!!**

Okay, that was probably too much exaggeration from my part, but this time, I think it was probably needed.

I was the world champion, amongst everyone under 18!

In fact, at the time of the publishing of this book, I still am.

But that may change in 2020.

You'll never know.

I never really knew what would happen to those who won that specific title. If I did know, oh boy, I would have tried even harder for this title.

The winner would receive a check for another \$500. For me, that was almost doubling my money!

Also, each of us would receive a massive trophy for winning and a trophy that showed the entire globe on top of it.

Also, the winner names would be updated on Wikipedia.

Yes, that's right! Wikipedia had an article about KenKen, in which it displayed the names of the Champion of the Champions for 3 years.

Now, I had even more of a blast after this win of mine.

We celebrated with a ping – pong party at the Table Tennis Center itself. We were served burgers and pizzas too (my favorite foods).

And with that, my story is over (at least for now).

I feel ready and excited for the new championship in 2020. It will be time for me to defend my title as the WORLD CHAMPION.

(At the time of writing, I have won the UAE National Championship, but the International Finals have not occurred yet.)

Guaranteed, I will have to work much harder, but I feel the rewards are more than enough to justify that hard work, not to mention the fun and enjoyment that I'll experience on my journey henceforth.

# Chapter 4 – KenKen

## Advanced Tips

Remember the mistakes that I told you about? Well, that's only part of what a good KenKen Solver should know to have a chance at winning. Here are some of my strategies to become the best at KenKen:

### Tip 1: Increase your writing speed:

This is perhaps a universal truth. You can have all the good strategies, and even be able to avoid all of the mistakes, but unless you increase your writing speed, none of it matters. To assess your writing and even solving skills, print out any size of the puzzle, and solve it as fast as you can. The table below shows what your speed actually means:

WHAT YOUR SPEED IS FOR A 3x3	ASSESSMENT
>30 seconds	BRILLIANT!! You'll be a champion in no time!!
30 – 60 seconds	Not bad, but you'll have to do better than that.
60<= seconds	You need more practice.
If you got the puzzle wrong	Man, sharpen up your skills.

WHAT YOUR SPEED IS FOR A 4x4	ASSESSMENT
>45 seconds	BRILLIANT!! You'll be a champion in no time!!
45 - 75 seconds	Not bad, but you'll have to do better than that.
75<= seconds	You need more practice.
If you got the puzzle wrong	Man, sharpen up your skills.

WHAT YOUR SPEED IS FOR A 5x5 AND ABOVE	ASSESSMENT
<60 seconds	BRILLIANT!! You'll be a champion in no time!!
60 – 90 seconds	Not bad, but you'll have to do better than that.
90<= seconds	You need more practice.
If you got the puzzle wrong	Man, sharpen up your skills.



## Tip 2 : Try Visualizing

This tip is a little bit difficult to master, but with a little practice, it can dramatically reduce your timing in KenKen.

I know, this technique seems ironic, since I named it as a mistake in the 2nd chapter, but that was only for those who were blindly doing it.

Visualizing is a great power, but only to those who can handle it. If you can manage it, it will help you to see what you can write next in the puzzle even while you are writing.

To get into the habit, have a look at the solution of a puzzle, as well as the puzzle itself, side by side. Then, try and find the best way, and in the most comfortable way, you think you can reach that puzzle's solution. Then, without memorizing the solution, put away the solution, and then try the same technique on the unsolved puzzle.

You will see your timing dramatically improve.

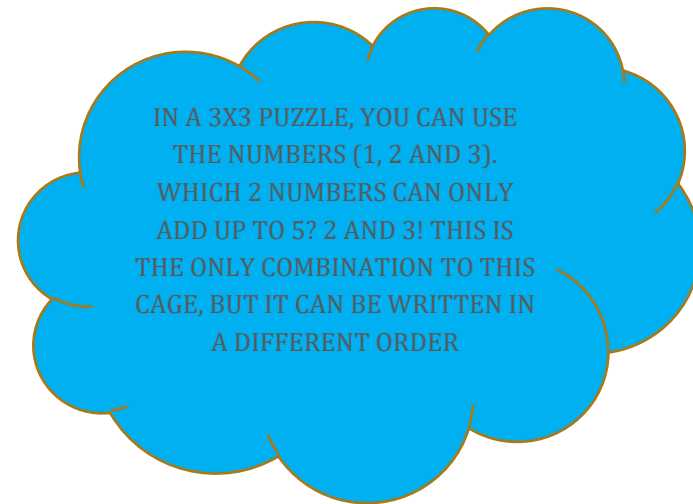
Keep using this technique for some other puzzles, and if you like it, then keep using it. Otherwise, Go back to the start and do it all over again, with a different puzzle.

## Tip 3 : Write down all 1-Shot solution to cages

In KenKen, there are some cages which will only have just one possible solution (But, you have to find the order).

I dub these cages, 'Halfreebies' because like a freebie, they only have 1 solution, but unlike freebies, they can be written in a different order.

For example, in a 3x3 puzzle, if a cage appears like this:



Like so, there are many more cages of this kind. Write them down and memorize them. It won't be easy at first, but soon you will be able to incorporate it into your arsenal.

Great! So now, all you need to do is practice, and then you'll become good at KenKen!!

But now, how does the system work, I hear you asking. Well, that and more will be explained in the next chapter...

# Chapter 5 – The System

So, now that you know how to solve any KenKen puzzle more or less with ease, it's time for me to tell you about the system of how this works.

Note that I will be explaining how the International Level works only, because the system of choosing a country's representatives for such competition may be different in each country.

The KenKen International Championship (KKIC) will be 3 rounds, each with three puzzles per round. Each round gets progressively harder.

There are three Student divisions separated by age, and Adult Division, and a Senior (60+) Division. All will have awards and prizes for the top 3 finishers in each division.

The Adult and Senior Divisions will receive the same puzzle sets. Each Student Division will have its own unique puzzle set.

The winners of each Student Division will compete with each other to solve a 7x7 puzzle. The winner will be named the KenKen International Student Champion. The top 3 qualifiers of the combined Adult and Senior Divisions will compete in the Championship round for the title of International KenKen Champion.

I assume that you're a kid, and so, I will elaborate on only the Kid Section (sorry, adults!).

Round 1 is 15 minutes long.

Round 2 is 18 minutes long.

And Round 3 is 20 minutes long.

This table will describe the features of each round according to each category:

DELTA	The following puzzle sizes will come: 4x4, 5x5 and 6x6.
KAPPA	The following puzzle sizes will come: 4x4, 5x5, 6x6 and 7x7.
SIGMA	The following puzzle sizes will come: 5x5, 6x6, 7x7 and 8x8.

## Scoring

Scoring is based on a combination of accuracy and speed. The scores will be calculated as follows:

1000 points will be awarded for each successfully completed puzzle.

"Time bonus" points for speed will be calculated as follows:

Total possible "time bonus" points per round are equal to the time limit in minutes for the round multiplied by 30. For example, round 1 is for 18 minutes, so the total possible "time bonus" points are 540. 1 "time bonus" point is deducted for every 2 seconds of solving time as the clock counts down to 00:00.

# Chapter 6 – Epilogue

## A bit more about KenKen

- KenKen is a brain-stimulating exercise which improves cognitive abilities
- It helps develop logical thinking and problem-solving skills
- It helps develop concentration and perseverance
- It improves mathematical skills
- It encourages independent thinking

## Is KenKen educational?

Absolutely! KenKen is not just about math. It is about the overall development because it imparts skills that your child can utilize not just in everyday life, but beyond the classroom as well. Benefits of KenKen include, but are not limited to, improved critical thinking skills, better problem-solving abilities, enhanced cognitive abilities, increased stamina, higher self-confidence, and perseverance. It also helps adults and seniors keep their brains sharp and alert. It is a puzzle everyone can enjoy at any time. KenKen puzzles can be accessed for free online via or via its extremely popular iOS and Android mobile apps. You can also find KenKen puzzles in books, magazines, and newspapers like the New York Times.

## Are there any more websites that I can visit?

Yes, there are tons more websites, through which you can learn more about KenKen, such as:

- <https://www.kenkenchampionship.com/>
- <http://www.kenkenpuzzle.com/> (my favourite!)

In fact, if you're looking for more, there is a KenKen app, available on Android and iOS devices, for online puzzles anytime and anywhere.

And that's it! Yup, you've just finished the book. All that's left are some extra puzzles that I have added. It may seem as if you learned nothing but no. You've just gone through a long and hard journey, and you've made it! You have created your own arsenal for solving any puzzle you can see.

I wish you good luck on your own journey, for this book has led you to its beginning.

**Farewell.**

# Chapter 7 – Extra Puzzles & Solutions

If you want to have some immediate practice in KenKen, here are some practice puzzles. Solutions are at the back.

<b>1 -</b>	<b>4 +</b>	
	<b>9 +</b>	

<b>2 /</b>	<b>1 -</b>		<b>24 ×</b>
	<b>5 +</b>		
<b>24 ×</b>		<b>2 /</b>	<b>2 -</b>

<b>4 ×</b>	<b>2 -</b>		<b>6 +</b>	<b>2 -</b>
	<b>5 +</b>			
<b>11 +</b>		<b>12 ×</b>		<b>15 ×</b>
	<b>1 -</b>		<b>2 /</b>	
	<b>2 /</b>			

<b>8 +</b>	<b>192 ×</b>	<b>2 /</b>	<b>90 ×</b>	<b>12 +</b>	
				<b>1 -</b>	
		<b>1 -</b>			<b>4 -</b>
<b>2 -</b>			<b>2 /</b>	<b>4 ×</b>	
	<b>13 +</b>	<b>7 +</b>			<b>3 /</b>
			<b>6 ×</b>		



Solutions

<b>3</b>	<b>1</b>	<b>2</b>
<b>2</b>	<b>3</b>	<b>1</b>
<b>1</b>	<b>2</b>	<b>3</b>

<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>
<b>2</b>	<b>1</b>	<b>3</b>	<b>4</b>
<b>3</b>	<b>4</b>	<b>2</b>	<b>1</b>
<b>4</b>	<b>2</b>	<b>1</b>	<b>3</b>

<b>4</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>2</b>
<b>1</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>4</b>
<b>2</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>5</b>
<b>3</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>1</b>
<b>5</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>3</b>

<b>2</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>3</b>
<b>6</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>4</b>
<b>4</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>3</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>5</b>
<b>1</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>6</b>
<b>5</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>2</b>

2	1	4	6	5	7	3
6	2	3	5	7	4	1
7	5	1	4	6	3	2
4	6	5	1	3	2	7
3	7	6	2	1	5	4
1	3	2	7	4	6	5
5	4	7	3	2	1	6

4	7	3	5	8	2	1	6
8	3	2	1	5	7	6	4
2	6	8	3	7	4	5	1
6	1	4	8	2	5	7	3
5	4	1	2	6	8	3	7
7	5	6	4	3	1	8	2
3	2	5	7	1	6	4	8
1	8	7	6	4	3	2	5

Puzzles courtesy of **KrazyDad Inky** puzzles. It is another good source for good puzzles.

# Chapter 8 – Acknowledgement

## **Thank You - KenKen**

No one goes through a journey alone. He has many people to thank, who have helped him to move on.

Here are those people who I really appreciate the faith and time that they have put in me.

Thanks to my mom and dad, who have always been with me, every step of the way during this journey. Your hard work has clearly been rewarded.

Thanks to the teachers of my school, and my friends, who encouraged me and gave me the support I needed.

Thanks to the Rootstalk Academy, Dubai, UAE for the guidance they gave me throughout the International Round.

\*\*\*\*\*