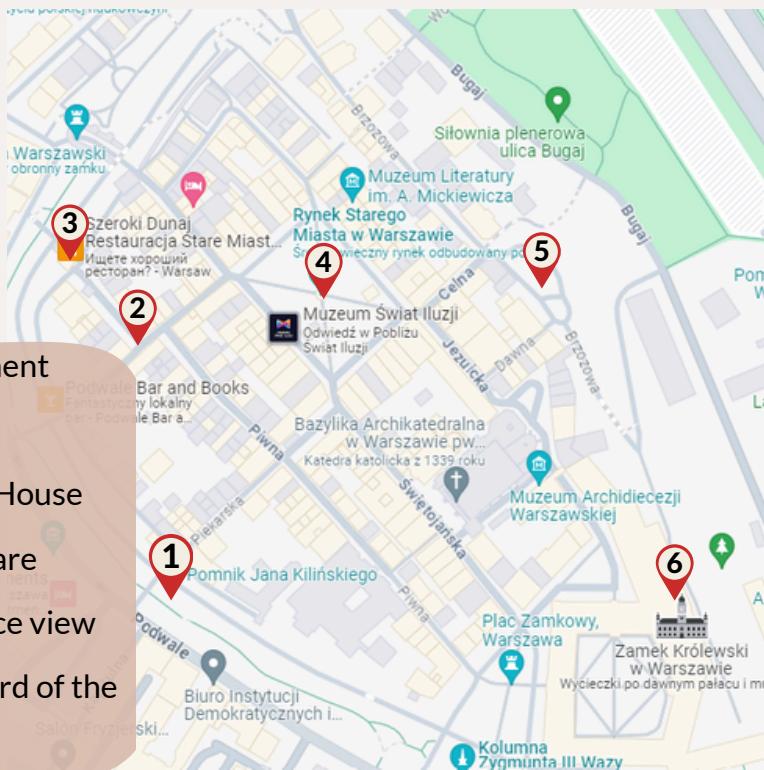


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# Itinerary



- 1 Jan Kiliński Monument
- 2 Wąski Dunaj Str.
- 3 The Executioner's House
- 4 The Old Town Square
- 5 Gnojna Góra Terrace view
- 6 The Grand Courtyard of the Royal Castle

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# VisitMath Tours Warsaw Old Town



## Step 1: Jan Kiliński Monument

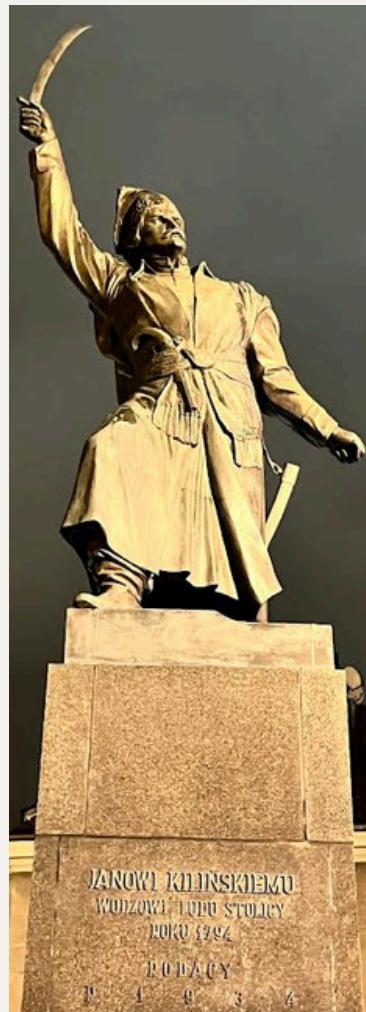
Welcome, everyone, to the heart of Poland's capital city, the Old Town.

My name is Jan Kiliński. I lived here in the area at the turn of the 18th and 19th centuries. I was a shoemaker by profession, but my love for my Homeland made me abandon a peaceful family life, and in 1794 I fought in the Warsaw Insurrection and the Kościuszko Uprising, where I was appointed colonel for my merits, and after losing - I was imprisoned 3 times by Russians, once by Austrians.

I lived in Vilnius for a few years, but in Warsaw I lived and worked as a shoemaker until my death. Unfortunately, you cannot lay flowers on my grave in Powązki Cemetery - it was destroyed when the church was expanded.

But here in the Old Town, you will see not only my monument at 20 Piekarska Street, but also the house at 5 Szeroki Dunaj Street and the street named after me.

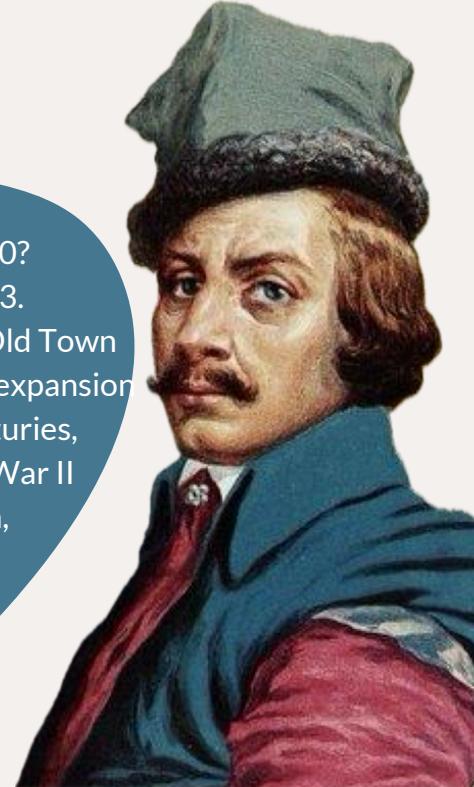
In addition, as a token of my merits, I am the patron of military units, a ship, schools - among others the School Complex No. 31 in Warsaw 😊, scout troops and the Kiliński's Sabre is the Highest Polish Craftsman Honourable Decoration.



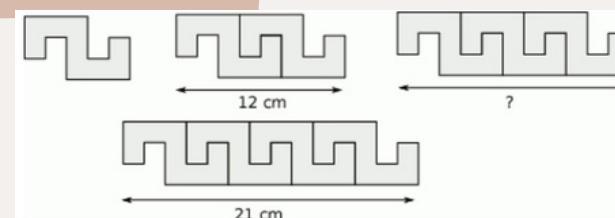
Jan Kiliński Monument



How old do you think these beautiful townhouses are? Guess! 100 years old? 200? No, it is not - it is a reconstruction from 1953. The beginnings of the development of the Old Town date back to the 13th century, and further expansion took place between the 14th and 19th centuries, but the actions of the Nazis during World War II caused enormous damage - the Old Town, like almost all of Warsaw, laid in ruins.



The figure shows how a pattern is arranged from identical elements and gives the lengths of the two parts of the pattern.



What is the length of the section of the pattern made up of 3 elements?

- A) 15 cm
- B) 15,75 cm
- C) 16,5 cm
- D) 18 cm



Take a look around - behind the Jan Kiliński monument, on the Jan Zachwatowicz interwalls, there is one of Warsaw's the most interesting clocks.

Next to the hours you will see the signs of the zodiac. If you wait until a full hour, to the sound of the song "And how the king went to war" to a poem by the famous 19th century poet Maria Konopnicka, some elements come to life and change their position.

In front of the monument you will see defensive walls from the 14th century.

Walking northeast along them, you will reach Wąski Dunaj (Narrow Danube) Street.

### DECODE THE LETTERS: PART 1

Along the way, a small puzzle awaits you. Every now and then you will get a bunch of dots and dashes. Do you know where they come from? From the Morse alphabet! From these characters in the Morse alphabet, at the end of our tour, you will form a slogan related to a legendary figure of Warsaw. And there were many of them....

Here are the first letters:

-...

### Step 2: At the Goldsmith-Jeweller's shop

You have just turned off the interstate into Narrow Danube Street. At number 4/6/8 you will find one of the many jewellery shops in this area. In Warsaw we have many masters of this craft. They work with amber, silver and gold.

Do you know where the name of Wąski and Szeroki Dunaj Street come from?



The Goldsmith-Jeweller's shop



We will be moving back to distant times. In the 15th century, the Dunaj (Danube) was the name of both streets. The Dunaj (Danube) - because a stream flowed from here that bore the same name as one of the most famous Europe's longest rivers.

Do you know which countries the Danube flows through? Try to name at least 3!



Take a look around Szeroki Dunaj Street - it looks like a small market. And so it was. Herrings, meat, vegetables and shoemakers' products were traded here - do you remember who lived here? At number 5 was the house of...Jan Kilinski! Where the Danube stream used to flow, there is now a cast-iron well.

However, let's take a look at the jewellery shop at Wąski Dunaj Street.

Mr. Maciek, a jeweller, had a quantity of silver rings.

The thickness of each ring in cross-section was 0.5 mm. From these rings Mr. Maciek's pupils made two chains: one 32 cm 6 mm long and the other 42 cm 6 mm long.



How many rings did Mr. Maciek have if his pupils used 40 more rings for the longer chain than for the shorter chain?

#### DECODE THE LETTER: PART 2

Here are the next letters:

• -



At 13 Szeroki Dunaj Street you will see the narrowest and free-standing townhouse.

### Step 3: At the house of a public executioner



You're probably wondering who might have lived there - perhaps it was someone who isolated themselves from the other residents? Why? Do you know what his profession was?...It was a royal executioner! It was believed that his work was unclean, hence his house being at some distance from the others. As the centuries passed, its inhabitants changed - medics and craftsmen lived here.

Although, the infamous name remained the same...



The house of a public executioner

The walls of the Executioner House from Szeroki Dunaj Street consist of 4 rectangular elements.

Calculate the area of the corner wall on the left knowing that the base is 230 cm and the height is 517 cm.

Do you know how much the surface area is? Great!

### DECODE THE LETTERS: PART 3

... / ..

I think it's time for a break from riddles. I'd like to invite you for some Warsaw delicacies.



From Wąski Dunaj Street you will reach the Old Town Square. Turn right into Nowomiejska 1/3 St. Here you will find a restaurant where you can taste buns with mushrooms and "Wu-Zetka" cakes.



Wu-Zetka Cake



Bun with mushroom gravy



The history of these two dishes is very interesting. After the WW II, when the Polish capital was being rebuilt, the Wschód-Zachód - W-Z (East-West) Route was constructed and to commemorate this fact, Warsaw confectioners invented a cocoa cake soaked in punch and topped with whipped cream wu-zetka. The bun with mushroom gravy, on the other hand, was the 1960s crisis equivalent of the New York hot dog. As they say in the country at the Vistula River - "A Pole can do it!".

#### Step 4: The Old Town Square

The next place is the Old Town Square.

I would like to introduce you to some of my friends who live here - the Mermaid and the Basilisk.



The square is a rectangle measuring 90x73 m. It was an administrative and commercial centre, a place of momentous historical events and an executioner's workplace. The town hall, well, pillory and merchants' stalls were located here. The tenements around the square belonged to prominent merchant families. Nowadays, it is home to the Warsaw History Museum, a chemist's, a post office, various restaurants, cafes, jewellery and souvenir shops, and a statue of my friend the half-woman - half-fish with sword and shield - Mermaid with a fountain. She is the emblem of the capital! In addition to the Mermaid, the Market Square is also home to the Basilisk, a scaly-covered giant animal with wings, clawed paws and a crocodile-like tail.



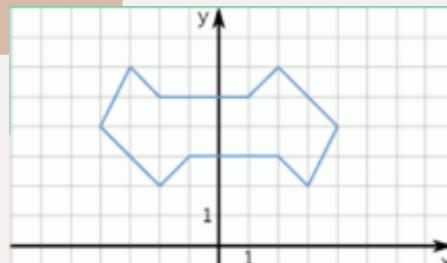
It used to inhabit the cellars at Krzywe Koło Street. During the day it slept and at night it destroyed everything it came across. Worse still, he would turn anyone who looked at him into stone with his gaze, until a brave tailor decided to defeat him by going down to the cellars with a mirror. When the basilisk saw his face in it, he turned himself into stone, thus disenchanting the people who had previously been turned into stone.



The Basilisk

### AXIAL OR MEDIAN SYMMETRY

In a rectangular coordinate system the following figure is placed:



What does the figure show?

- A) has one axis of symmetry
- B) has two axes of symmetry
- C) has one centre of symmetry
- D) has two centres of symmetry

Do you already know the solution to this task? Congratulations!



Before I take you to the observation viewing terrace on Gnojna Góra (Dung Mountain), I have a few puzzles for you.

### DECODE THE LETTERS: PART 4

Here are the next letters:

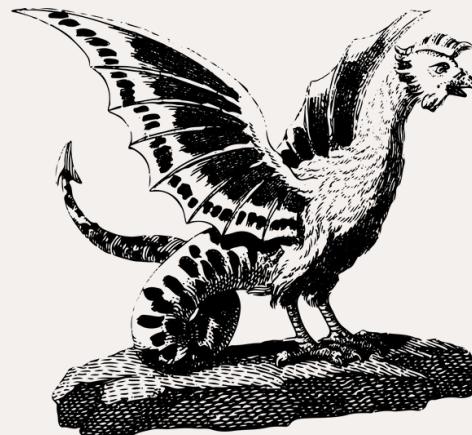
.-. / ..

### 4.A: Find the mermaid's fellow sisters in the area

If you take a good look around, you will find many fellow mermaids on townhouse facades, wind roses, coats of arms, stained glass windows, lampposts and signs. Take photos of 5 Mermaids you will find.



#### 4B : See where the Basilisk effigy is located in the Market Square



#### Step 5: A date on the Gnojna Góra (Dung Mountain)

One of the favourite places in the Old Town for dates is the observation deck on Dung Mountain. It is located a little bit out of the way. Away from the tourist routes. It offers a picturesque view of Praga, the Vistula and Wisłostrada. Couples in love like to attach padlocks with their names to the balustrade as a sign of their great love.



Gnojna Góra



Where do you think this name - Gnojna Góra - came from?

Well, at the junction of Celna, Dawna and Bugaj streets. 300 years ago there was a...rubbish dump here. For centuries, all the rubbish and waste of Warsaw was dumped here. At the back of the terrace is a sculpture of a Strongman carrying on his shoulders an enormously heavy boulder by Stanisław Czarnowski from 1908.





If a padlock on average weighs 31 dkg and there are 13 padlocks on each 27.8kg barrier, count the weight of 20 barriers with 179 padlocks.

Do you have a solution to this task? Great!

**From Gnojna Góra we will walk along Dawna Street to Jezuicka Street.**

Turn left and at 12/14/16 Kanonia Street you will find the Bell that makes dreams come true. Just think of what you want and walk around the bell 3 times and your dream will come true! Legend has it that this bell has never hung in any church - it was badly cast.



The Magic Bell



In the corner of Jezuicka 1/3 Street there is the Museum of the Cold War. Here you will learn about the Polish General Jerzy Kukliński, alias Jack Strong - a hero braver than the 10th James Bond.

Walking from Jezuicka/ Kanonia Street to Dziekania Street, we will come to Świętojanska Street. Here we will take another break. For coffee and zygmuntówka cake at the cafe at 21 Świętojańska Street.



### 5.A: The teacher's coffee dilemma

A teacher has a cup of black coffee. At first, he drank a sixth part of this coffee and added milk to make the cup full. Then, he drank a third part of the cup and again added milk so that the cup was full. Finally, he added milk a third time until the cup was full. Then he drank the contents of the cup to the bottom. ... an empty cup stood in front of the teacher.



The teacher wondered: "What did I drink more of: coffee or milk, and in general - how much of everything did I drink?". Help the teacher count it all.



"Zygmuntówka" Cake

## Step 6: The Grand Courtyard of the Royal Castle

After leaving the café, head to the right. It is impossible not to notice the stately building of the Royal Castle.

The Royal Castle now serves as a state and international representative function, an art gallery, a museum and an educational centre.

Passing through the Castle Square, we enter the Grand Courtyard through the Gate of the Great Clock Tower. The clock here is the most expensive clock in entire Warsaw!



The Great Clock Tower

The Grand Courtyard covers an area of 3,293 m<sup>2</sup>. It has facades reflecting the centuries-long history of the castle from Gothic through early Baroque to Classicism. The courtyard was rebuilt by the last king of Poland, Stanisław August Poniatowski. In the Courtyard there is a moneybox, into which not only generous Varsovians, 50 years ago, threw money for the reconstruction of the Royal Castle - one of the most important royal residences in Europe, thanks to which this reconstructed building was entered on the UNESCO World Heritage List.

The Royal Castle was built in the 14th century. Over the centuries, it has played an important role as a royal residence, a place of parliament, and the administrative and cultural centre of the country. Like the Old Town, it was destroyed during World War II, and in 1944 the Nazis blew it up.

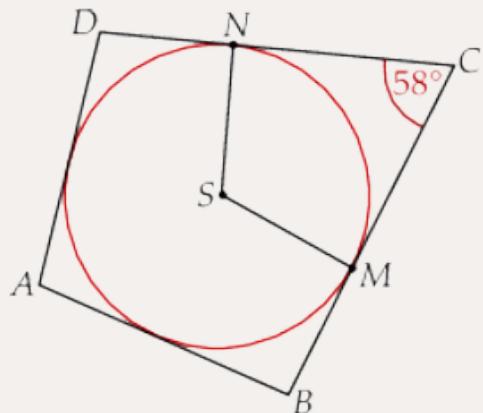
It was not until 1984 that the Castle's interiors were opened to the public, and in the following decades the Kubicki Arcade, the Palace under the Metal Sheet, the Upper Garden and, in 2019, the Lower Garden were restored in turn.



The Royal Castle

## THE COURTYARD OF THE CASTLE – QUADRANGLE

A circle inscribed in a quadrilateral  $ABC$  has a centre  $S$  and is tangential to the sides  $BC$  and  $CD$  in the points  $M$  and  $N$  respectively. The angle  $\angle BCD$  it has a measure of  $58^\circ$ .



What is the measure of the angle  $\angle MSN$ ?

- A)  $122^\circ$
- B)  $32^\circ$
- C)  $212^\circ$
- D)  $116^\circ$

## DECODE THE LETTERS: PART 5

Here are the last letters of the Morse riddle:

... / -.-

This is the end of our tour  
on and off  
the beaten tracks  
of the Warsaw Old Town.

I hope you have decoded  
all the Morse letters :)

Thank you for the time  
we spent together!

