



Škofijska gimnazija Vipava, SLOVENIA

MATHS ALIVE

KA229 - Cooperation for Innovation and the Exchange of
Good Practices

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Maths and curiosity - Slovenia



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One of distinctive form of our land Karst is the sinkhole. What geometric form is the sinkhole?



A half of sphere



A half of ellipsoid



A half of cube



A half of cone



Wind in Vipava is called Bora. Its velocity causes that trees grow at an angle. At what angle the tree on picture grows?



a) 55°



a) 70°



a) 40°



a) 25°



Above Soča river, there is an old railway bridge, which has the largest stone arch in the world. How long is the arch?



▲ 32 m



◆ 55 m



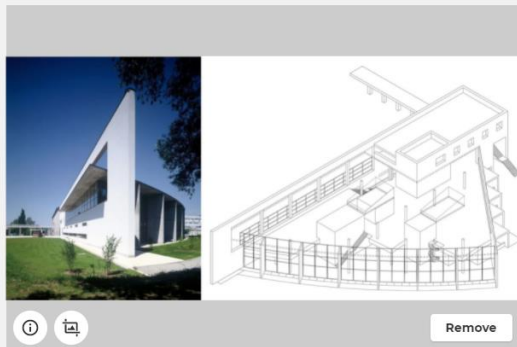
● 76 m



■ 85 m



Main library in Nova Gorica has a distinct shape, when looked from above. What does it look like?



▲ Trapezoid



◆ Triangle



● Book



■ Diamond



Church in Vrhpolje near Vipava has one of the biggest mosaics in Slovenia. What do you think it's surface area is?



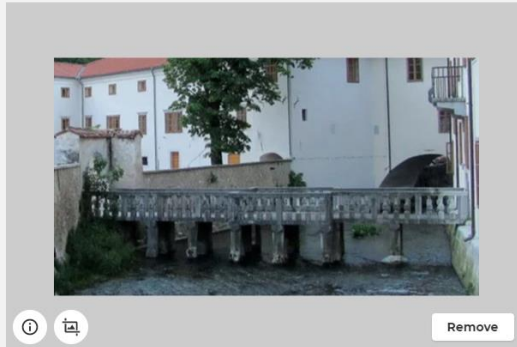
- | | |
|--|---|
| <input type="radio"/> 100 m ² | <input type="radio"/> 50 m ² |
| <input type="radio"/> 200 m ² | <input checked="" type="radio"/> 180 m ² |

What percentage of the stone was cut off to complete the statue, called "Theodosius cross" (near Vipava)?



- | | |
|---------------------------------------|----------------------------|
| <input type="radio"/> 50 % | <input type="radio"/> 60 % |
| <input checked="" type="radio"/> 70 % | <input type="radio"/> 80 % |

What is the length of Lantieri Bridge in Vipava? It has 40 pillars (20 cm wide), distance between two pillars is 15 cm.



▲ 100 m



◆ 24 m



● 14 m



■ 4 m



How many different flavour combinations of ice cream can we choose if there are 4 different flavours and we choose 2 ?



▲ 4 combinations



◆ 5 combinations



● 6 combinations



■ 10 combinations

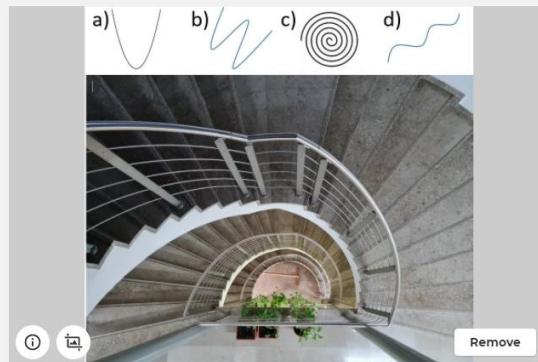


In what proportion is one of the small rectangles against the big rectangle in our school logo?



- | | |
|---|------------------------------|
| <input checked="" type="checkbox"/> 1:4 | <input type="checkbox"/> 1:5 |
| <input type="checkbox"/> 2:5 | <input type="checkbox"/> 2:4 |

Which of the following curves represents the shape of staircase in our school?



- | | |
|--|-----------------------------|
| <input type="checkbox"/> a) | <input type="checkbox"/> b) |
| <input checked="" type="checkbox"/> c) | <input type="checkbox"/> d) |

35 teachers are teaching at our school. 15 of them are male. In what proportions are male professors against the female?



▲ 15 : 8

◆ 6 : 5

● 3 : 4

■ 1 : 3

Triskaidekaphobia

The fear of the number 13 is one of the most common fears among people – triskaidekaphobia. The number 13 is often seen as the number of misfortune. Even Napoleon feared the number 13. Another well known European, who lived in the previous century, suffered from triskaidekaphobia. Who was it?

▲ our bishop Jurij Bizjak

◆ Adolf Hitler

● Alber Einstein

■ Slovenian president Borut Pahor

$$\pi \cdot z \cdot a = \pi z^2 a$$

Sometimes after school, us students like to go for a pizza together. Last time we were wondering if there was a way to calculate a pizza's volume. In which case could the volume of a pizza be calculated using the formula pizza ($\pi \cdot z \cdot z \cdot a$)?



Remove

▲ if the radius is a and the height is z



◆ if the radius is z and the height is π



● if the radius is z and the height is a



■ if the radius is π and the height is a

