

MATEMATIČKA ŠETNJA GRADOM

Zadatak 1. Šetajući Kalelargom, naići ćete na pločice različitih veličina. Izračunajte površinu jedne pločice. Šetnju nastavljate do Foruma.



Zadatak 2. Rimski forum u Zadru je najveći rimski forum na istočnoj strani Jadranskog mora. Bio je glavni trg rimskog *ladera* na kojem se odvijao javni život grada, a njegova gradnja je započela u 1. stoljeću prije nove ere. Utemeljio ga je prvi rimski car August o čemu svjedoče dva natpisa u kamenu iz 3. stoljeća kada je gradnja foruma završena. Forum je dimenzija 90 x 45 metara. Izračunaj koliko bi pločica iz Zadatka 1. bilo potrebno da se poploča cijeli Forum?.



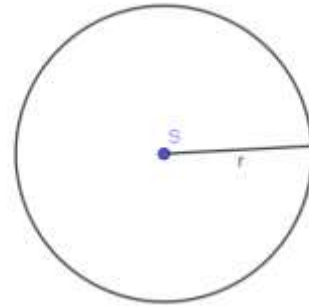
Zadatak 3. Na Forumu pronađi barem tri geometrijska lika koji imaju oblik kruga, pravokutnika ili kvadrata te im izmjeri opseg.

Zadatak 4. Nakon Foruma spustite se na zadarsku rivu, nastavite put do Pozdrava Suncu. Pozdrav Suncu sastoji se od tri stotine solarnih panela postavljenih u istoj razini s kamenim popločenjem rive u obliku kruga promjera 22 metra. Izračunaj opseg i površinu Pozdrava Suncu.

$$O = 2r\pi, \pi = 3.14$$

$$P = r^2\pi$$

r – polumjer, $2r$ – promjer



Zadatak 5. Pronađi Saturn te izmjeri njegov polumjer. Koliko je puta površina Saturna manja od površine Pozdrava Sunca?



MATHS WALKS THROUGH THE TOWN

You need: meter, pencil

Task 1. Walking through Kalelarga (main street on the peninsula), you'll find tiles (limestone tiles) of different dimensions. Find out the surface of one tile. Continue up to the Roman Forum.



Task 2. Roman forum in Zadar is the biggest Roman forum on eastern side of the Adriatic sea. It was the main square of Roman lader where public life was organized. The construction of Roman forum started in the first century B.C. It was founded by the first Roman imperator Augustus. There are two stone inscriptions from 3rd century (when the construction of the Roman forum was over) that prove it. Dimensions of forum are 90×45 m². How many tiles (from Task 1) would be enough to cover the whole Roman forum?



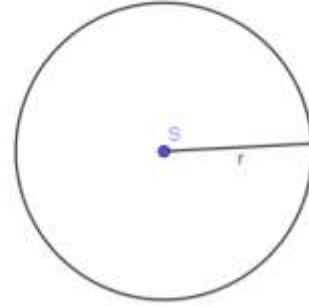
Zadatak 3. On Roman forum find at least three geometrical figures that have the shape of circle, rectangle or square. Find out their side length.

Task 4. After Roman forum go to the promenade (waterfront looking at the islands) and continue towards Greeting to the Sun. Greeting to the Sun consists of three hundred solar panels. Diameter of the Sun is 22 meters. Find the side length and surface area of the Sun.

$$O(\text{side length}) = 2r\pi, \pi = 3.14$$

$$P(\text{area}) = r^2\pi$$

r – radius, $2r$ – diameter



Task 5. Look at the planets around Sun. Find Saturn and find out (measure) his radius. How many times is the area of Saturn smaller than the area of the Sun?

