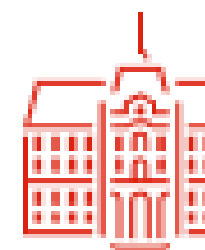




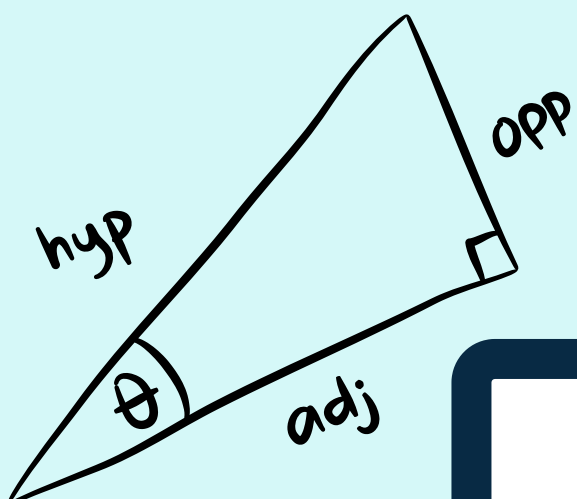
SREDNJA ŠOLA
VENO PILON
AJDOVŠČINA



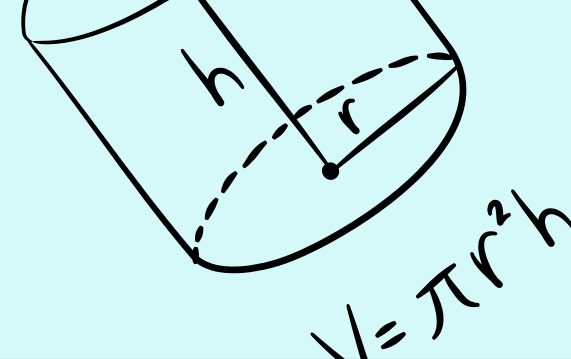
PEF

Geogebra

Matematično modeliranje



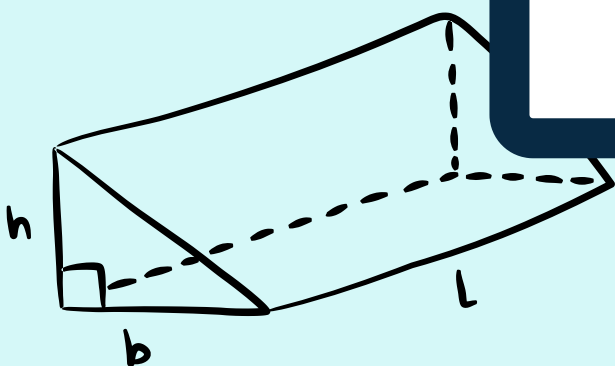
$$\sin(\theta) =$$



$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$= mx + b$$

$$a = \frac{V_f - V_i}{t}$$



$$V = \frac{1}{2} bhl$$

$$\frac{x}{a} + \frac{y}{b} = 1$$

$$ax^2 + bx + c = 0$$



$$V = \frac{4}{3} \pi r^3$$

PARABOLA



Mavrica



Cerkev



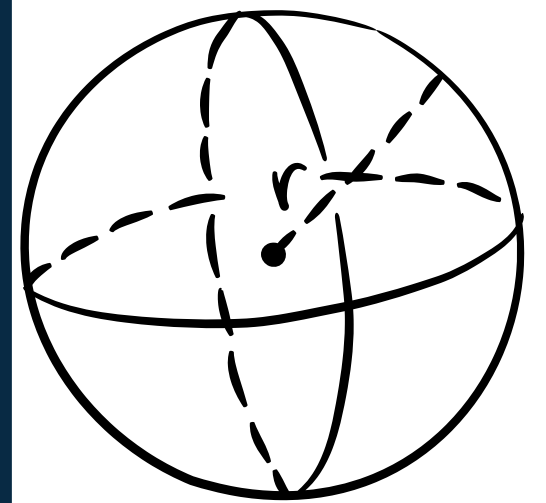
Vodomet



Gateway

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$y = mx + b$$



$$V = \frac{4}{3} \pi r^3$$

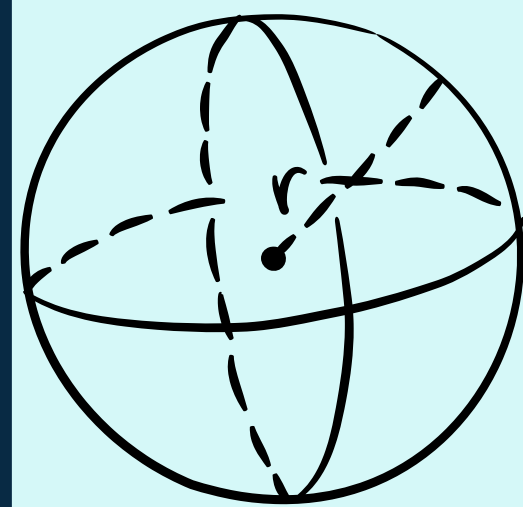
Vir: i-učbenik Vega 3



Vir: https://www.youtube.com/watch?v=4LTMJ_KAHnM

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

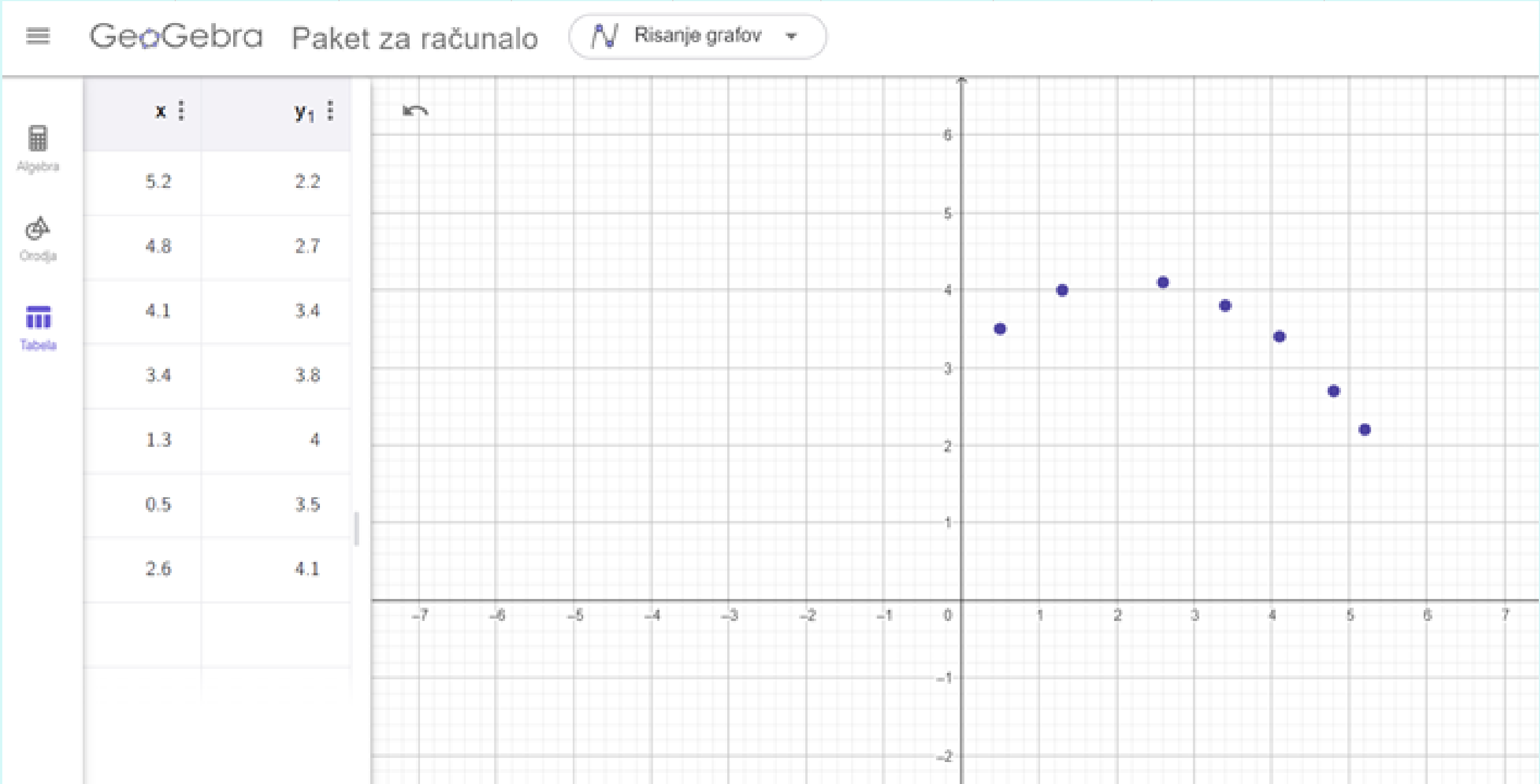
$$y = mx + b$$



$$V = \frac{4}{3} \pi r^3$$

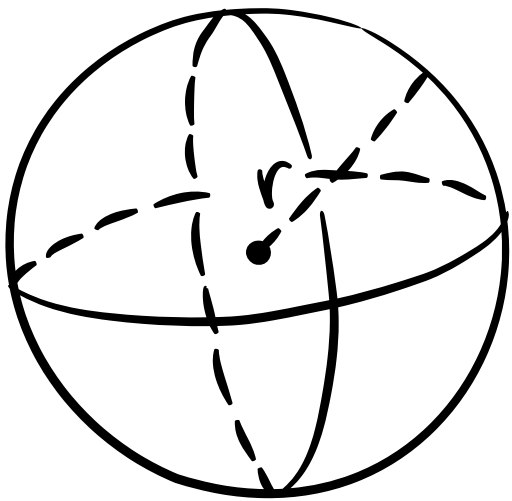
Jure je vrgel na koš prosti met, Jakob pa je dogajanje posnel s kamero. Izmerila sta položaj žoge v določenih trenutkih. Podatke sta predstavila v preglednici, kjer je x oddaljenost žoge od koša, y pa višina žoge.

x [m]	5,2	4,8	4,1	3,4	2,6	1,3
y [m]	2,2	2,7	3,4	3,8	4,1	4,0

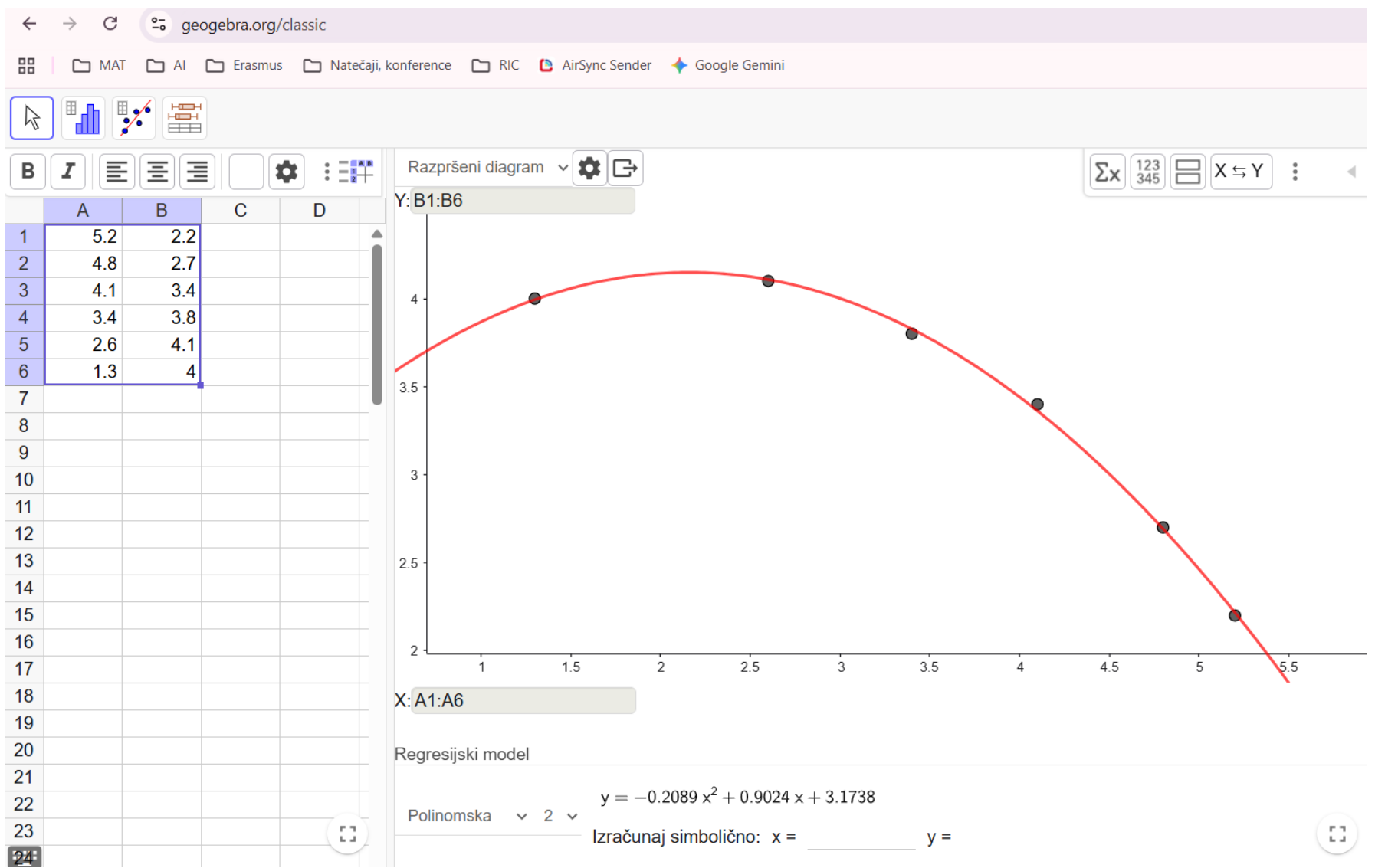
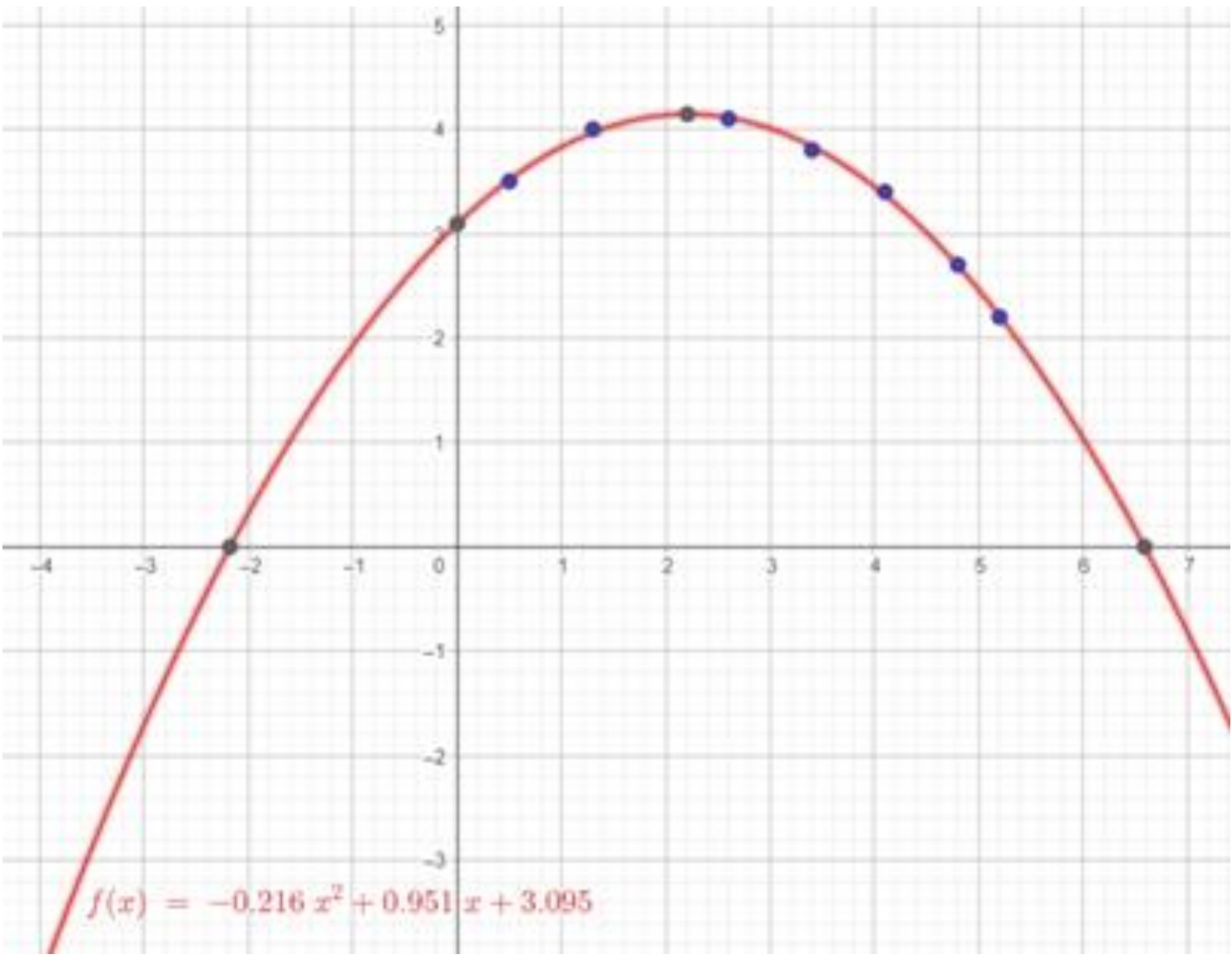


$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$y = mx + b$$



$$V = \frac{4}{3} \pi r^3$$



Iz danega grafa smo poiskali še odgovore na dana vprašanja.

a) Kako visoko bo žoga, ko bo oddaljena od koša 1,5m?

b) Koliko bo žoga oddaljena od koša, ko bo na višini 3,5m?

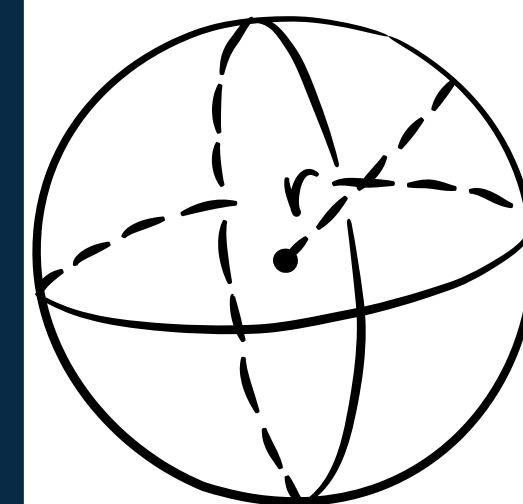
c) Na kateri točki bo žoga najvišje?



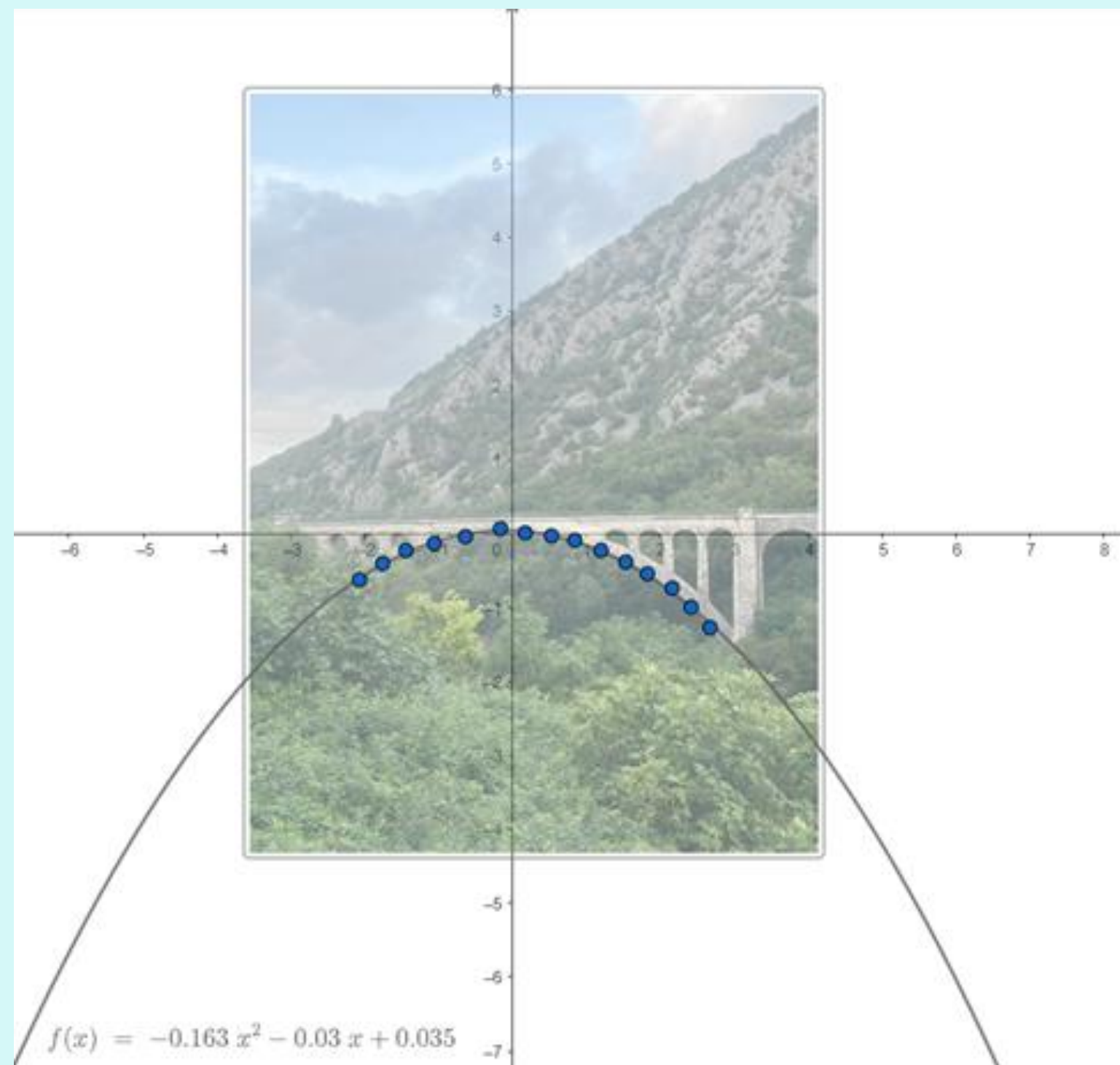
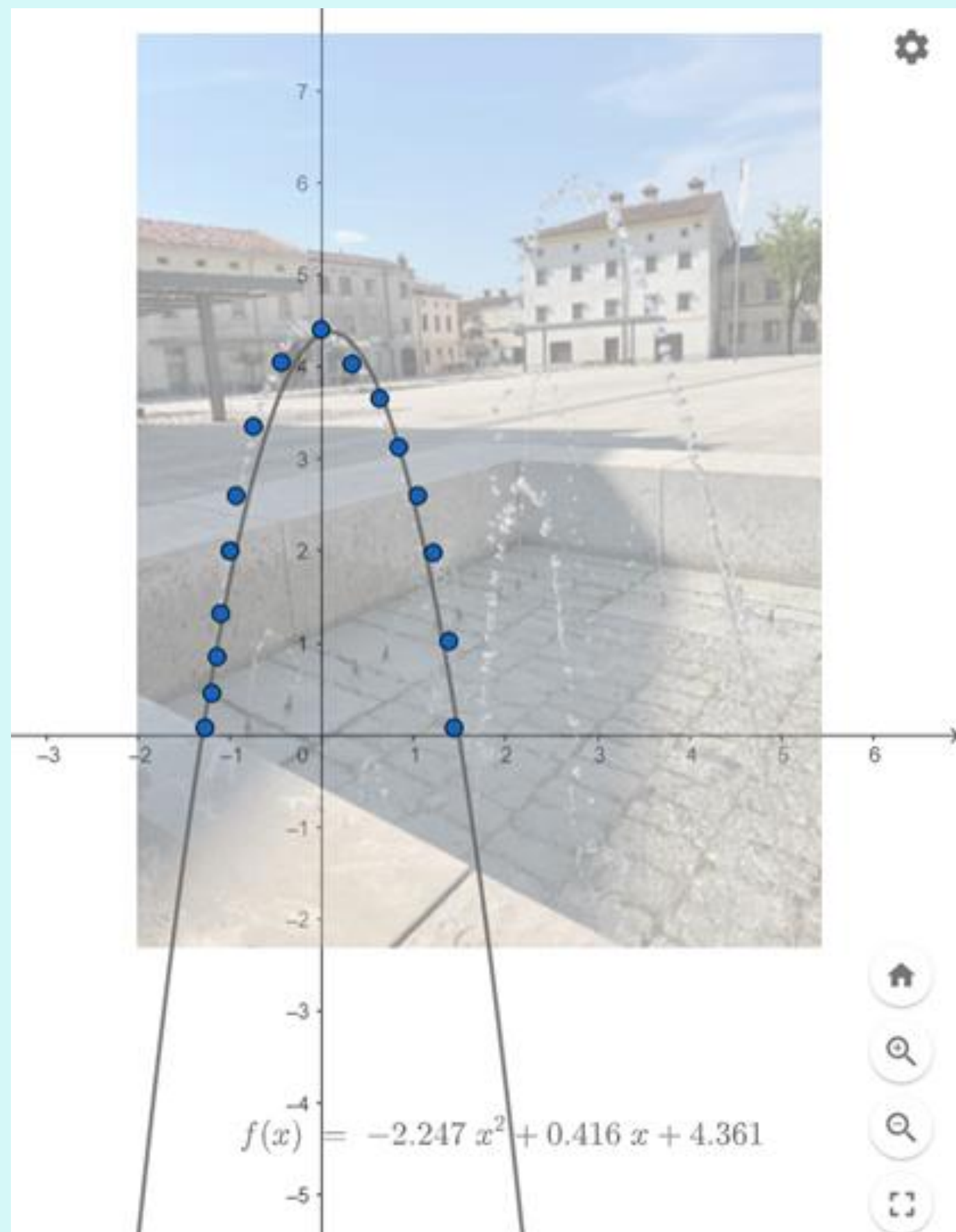
Vir: lasten

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$y = mx + b$$

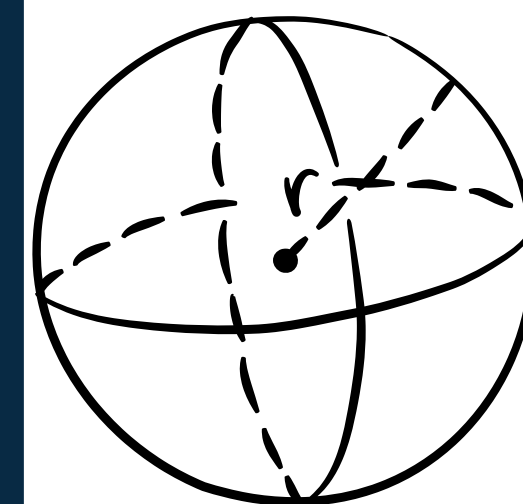


$$V = \frac{4}{3} \pi r^3$$



$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

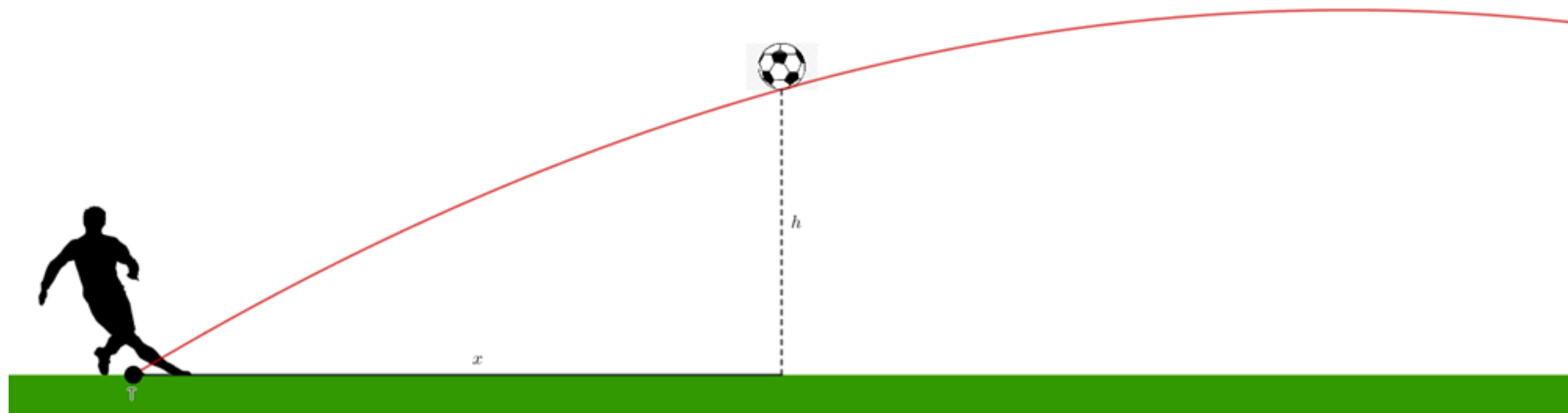
$$y = mx + b$$



$$V = \frac{4}{3} \pi r^3$$

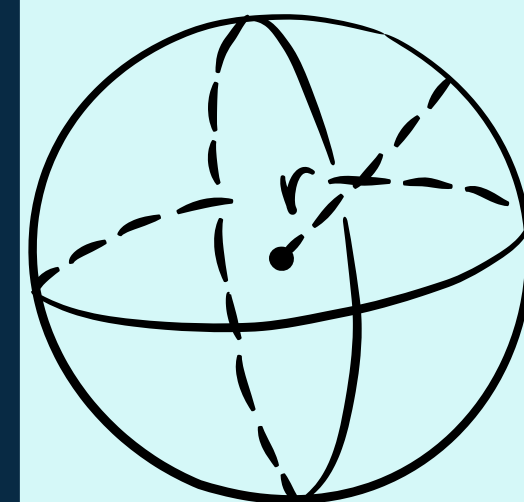
USTNI DEL POKLICNE MATURE

Igralec brcne žogo. Višino žoge h v odvisnosti od x , pri čemer je x oddaljenost od točke T, opisuje funkcija $f(x) = -0,023x^2 + 0,71x$. Z uporabo dovoljenega tehničnega pripomočka narišite graf te funkcije. Kako daleč od točke T bo žoga padla na tla? Kolikšna bo njena največja višina?



$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

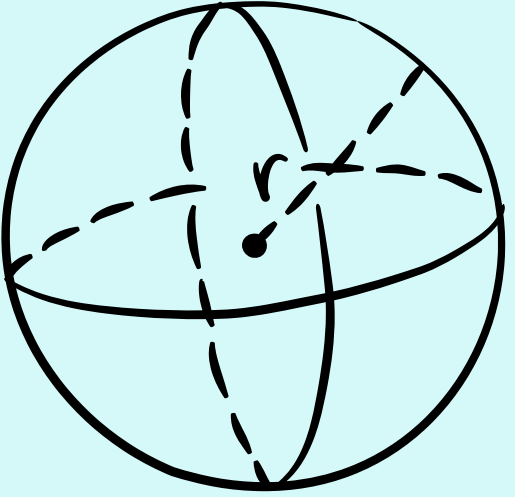
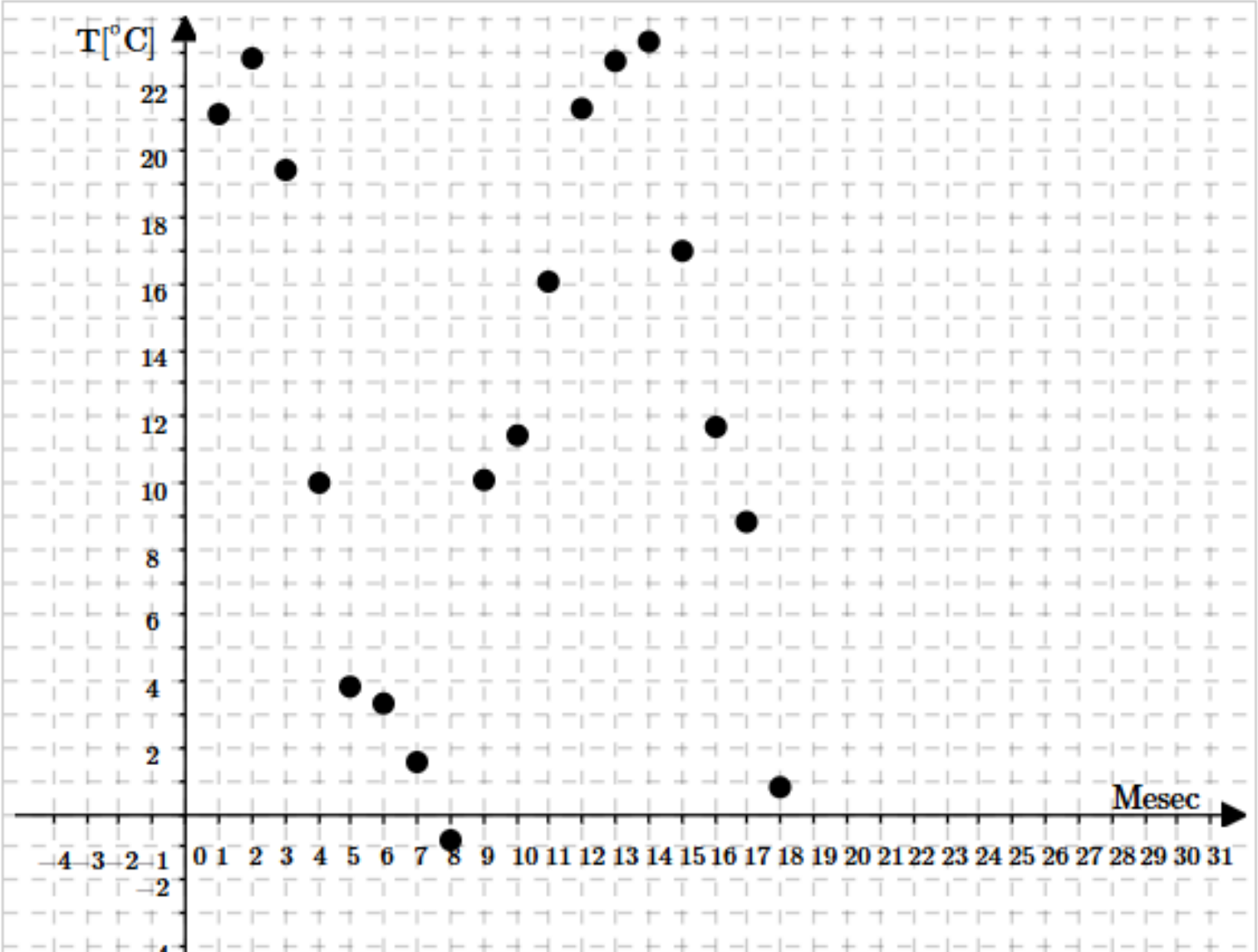
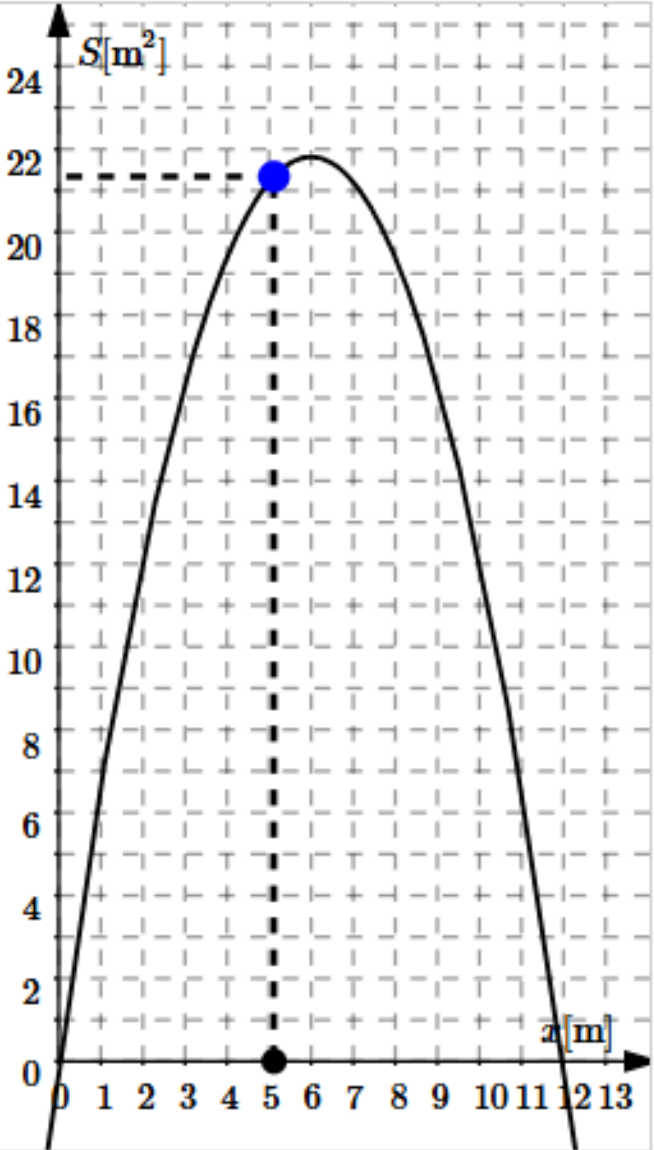
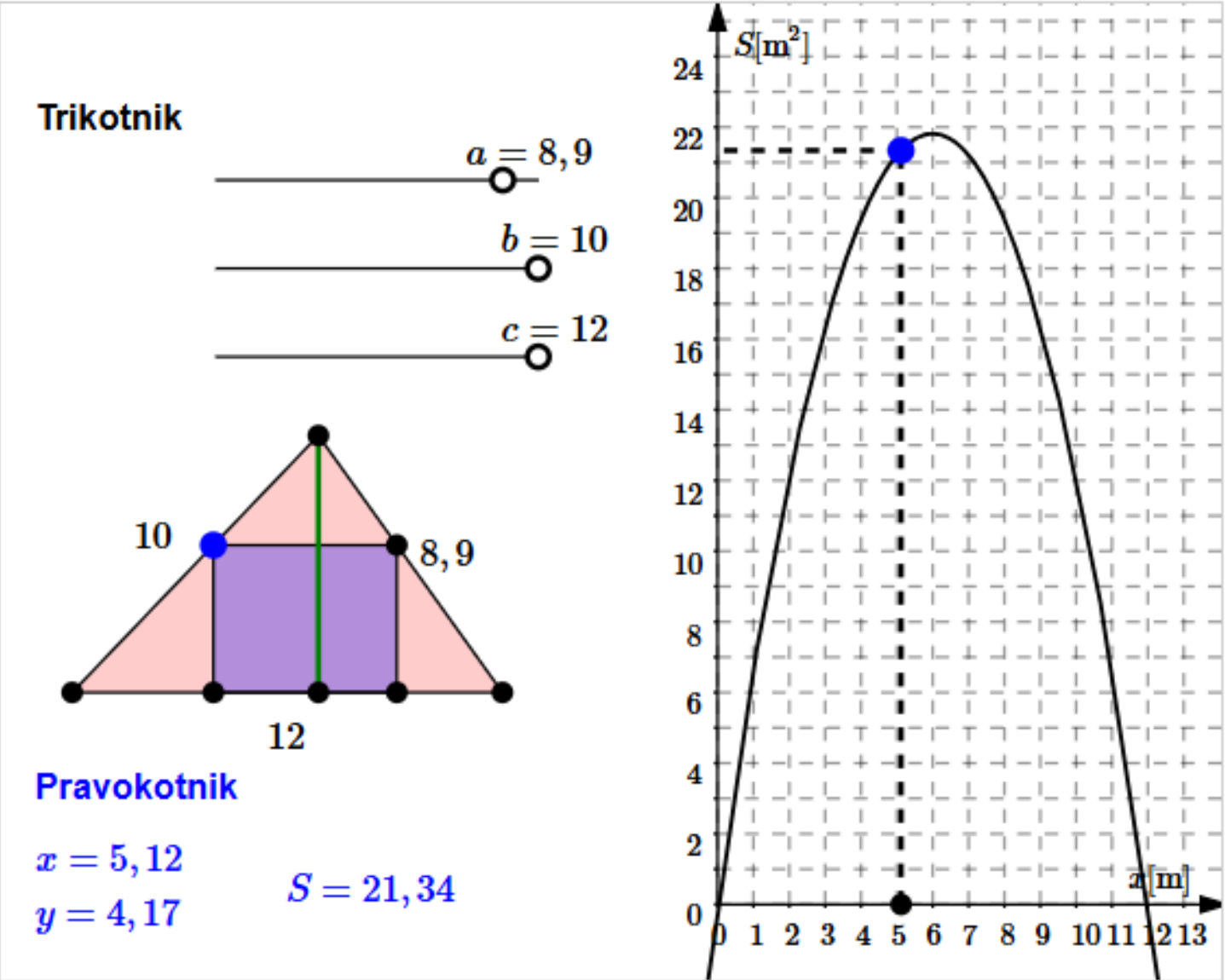
$$y = mx + b$$



$$V = \frac{4}{3} \pi r^3$$

MODELIRANJE FUNKCIJ

Vega 3



$$V = \frac{4}{3} \pi r^3$$

$$y = mx + b$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$