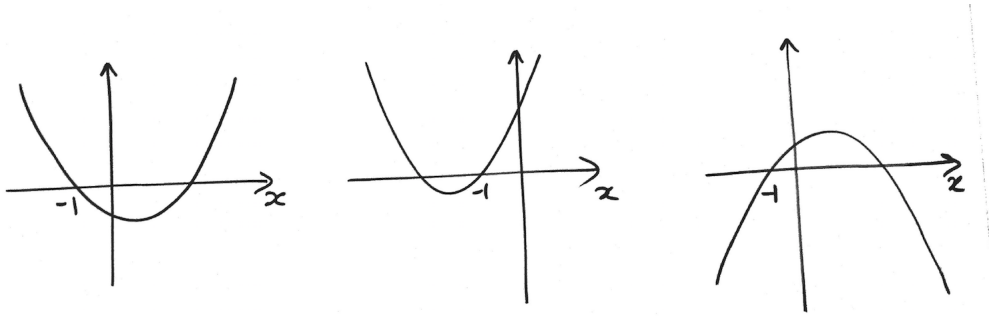
Can you find... curvy cubics edition

Sample work

underground mathematics

Can you find a cubic curve that ... (c) ... has a local minimum when $x = -1$?

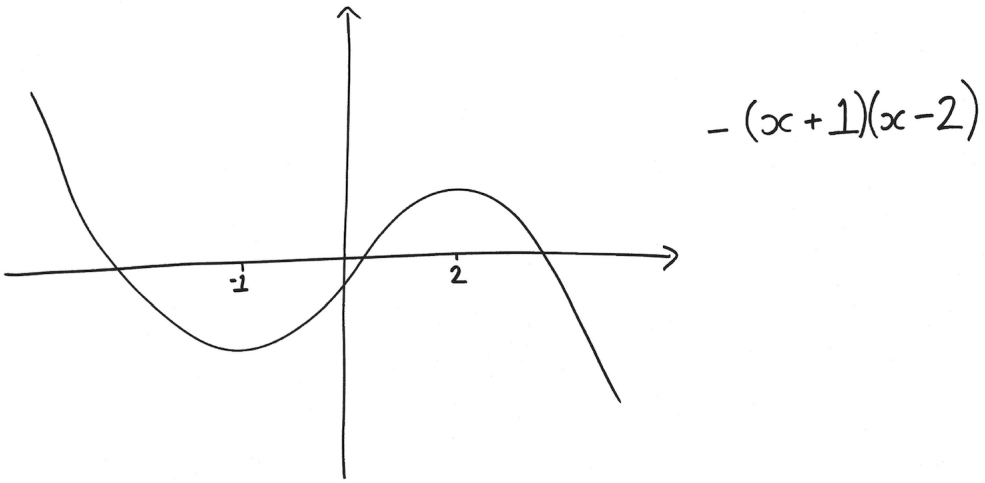
Student A



Questions

- Why has this student drawn quadratic graphs?
- How could you continue this piece of work to find suitable cubic equations?

Student B

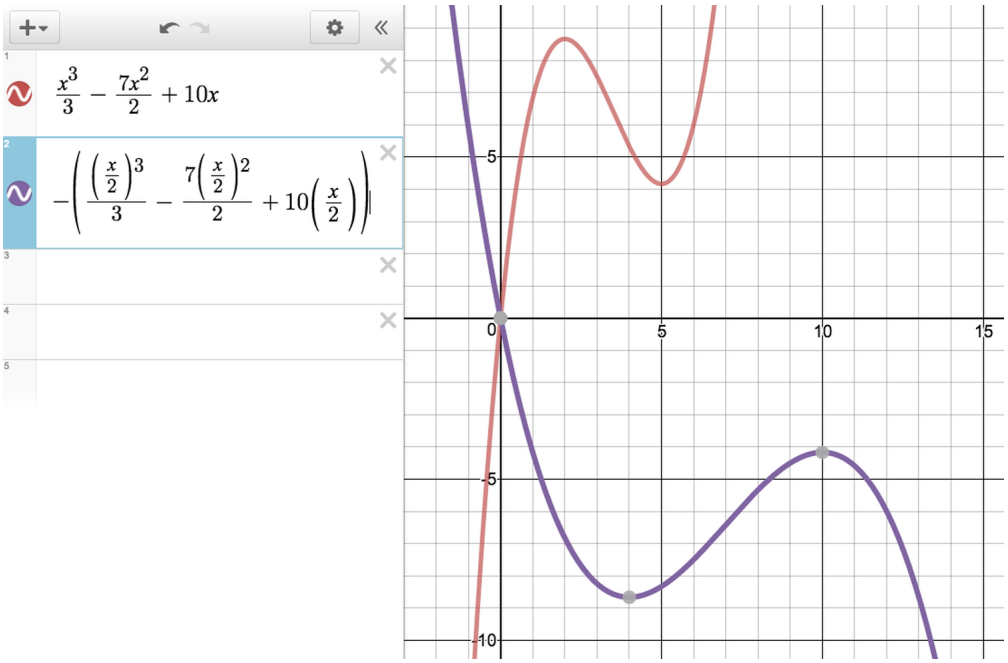


Questions

- What is the connection between the graph sketched and the expression written on the right of the image?
- How could you continue this piece of work to find a suitable cubic equation?

Can you find a cubic curve that … (d) … has a local minimum when $x = -2$ and a local maximum when $x = 4$?

Student C



Questions

- Why might this student have started with this red curve?
- How have they changed it to make the purple curve and why does this help?
- How could you continue from here?