

Eksplorasi dengan WolframAlpha

Kalkulus 1

2020/2021

Tim Dosen Kalkulus 1
Departemen Matematika FMIPA UI

- Menentukan himpunan penyelesaian ketaksamaan

$$-5 < 2x - 3 < 9.$$

- Di WolframAlpha, ketik:

$$-5 < 2 * x - 3 < 9$$

The screenshot shows the WolframAlpha interface. The browser address bar contains the URL <https://www.wolframalpha.com/input/?i=-5+%3C+2+x+-+3+%3C+9>. The search input field contains the inequality $-5 < 2x - 3 < 9$. Below the input field, there are links for "Extended Keyboard" and "Upload". The results section displays the input, the alternate form $-1 < x < 6$, and the alternate form assuming x is positive, which is $x < 6$. A number line graph shows the interval $(-1, 6)$ with open circles at -1 and 6 . The integer solutions are listed as $x = 0$, $x = 1$, and $x = 2$.

- Menentukan himpunan penyelesaian ketaksamaan

$$|2x - 5| < 7.$$

- Di WolframAlpha, ketik:

$$|2*x-5|<7$$

WolframAlpha computational intelligence.

$|2*x-5|<7$

Extended Keyboard Upload Examples Random

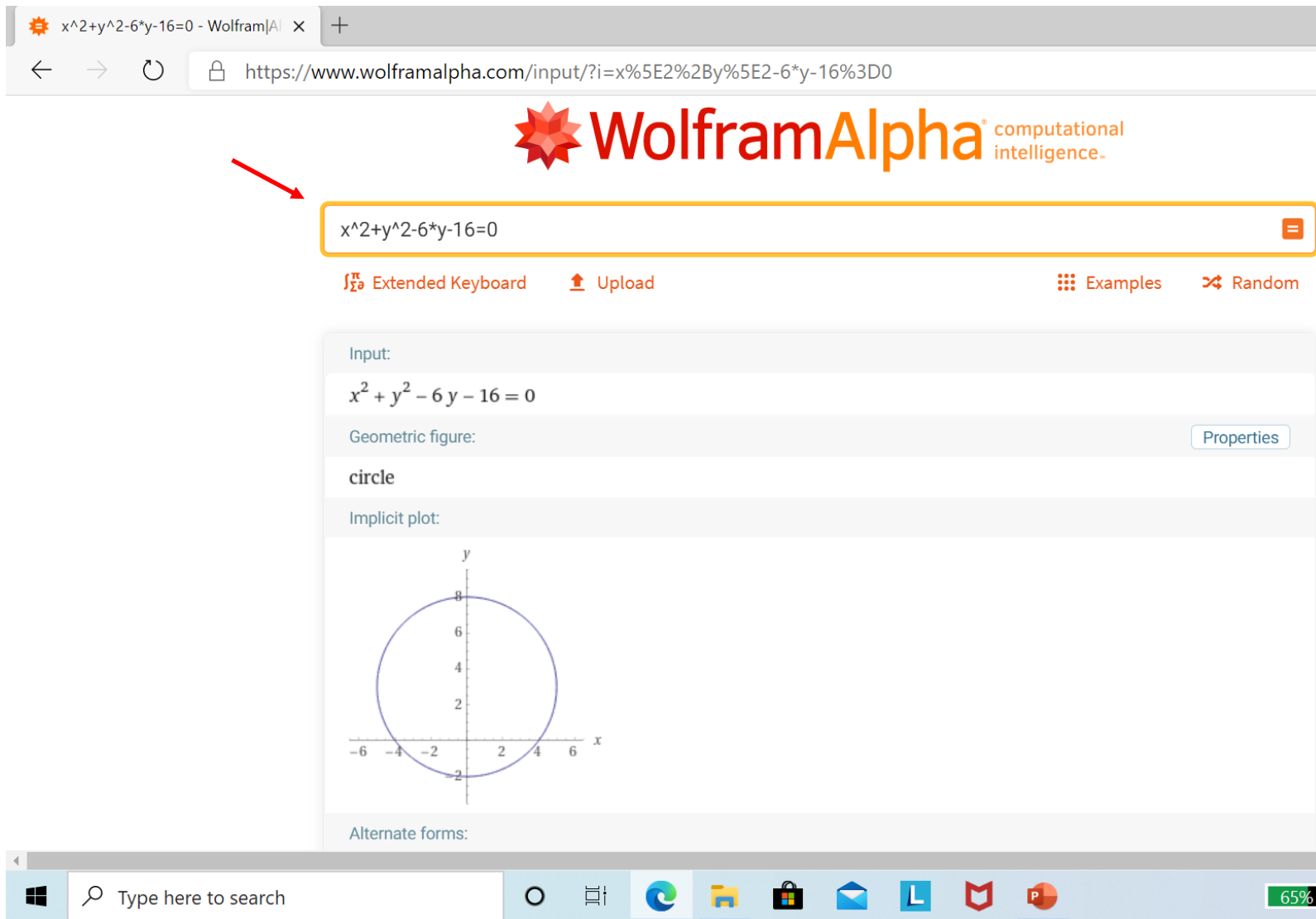
Input:
 $|2x - 5| < 7$
|z| is the absolute value of z

Inequality plot:

Alternate form:
 $|5 - 2x| < 7$

- Menggambar persamaan $x^2 + y^2 - 6y - 16 = 0$.

- Di WolframAlpha, ketik:
 $x^2+y^2-6*y-16=0$



The screenshot shows a web browser window with the WolframAlpha website. The address bar contains the URL https://www.wolframalpha.com/input/?i=x%5E2%2By%5E2-6*y-16%3D0. The search input field contains the equation $x^2+y^2-6*y-16=0$. Below the input field, the results are displayed under the heading "Geometric figure:". The result is a circle, with the label "circle" and a "Properties" button. Below the label, there is an "Implicit plot:" section showing a graph of the circle on a Cartesian coordinate system. The x-axis ranges from -6 to 6, and the y-axis ranges from -2 to 8. The circle is centered at (0, 3) with a radius of 5. The bottom of the screenshot shows the Windows taskbar with the search bar and several application icons.

- Menggambar fungsi nilai mutlak:
 $y = |x| + 3$.

- Di WolframAlpha, ketik:
 $y = |x| + 3$

- Menggambar fungsi bilangan bulat terbesar yang lebih kecil atau sama dengan:

$$y = [x] \text{ dengan } -5 < x < 5$$

- Di Wolfram Alpha, ketik:
 $y = \text{floor}(x), -5 < x < 5$

Selamat bereksplorasi dengan WolframAlpha!