MA 1024 Conference 1

1. Discuss Conference Options

   a. Examples by the TA
   b. Group-Work
   c. Office Hours

2. Homework Examples

3. Breakout Rooms Experiment
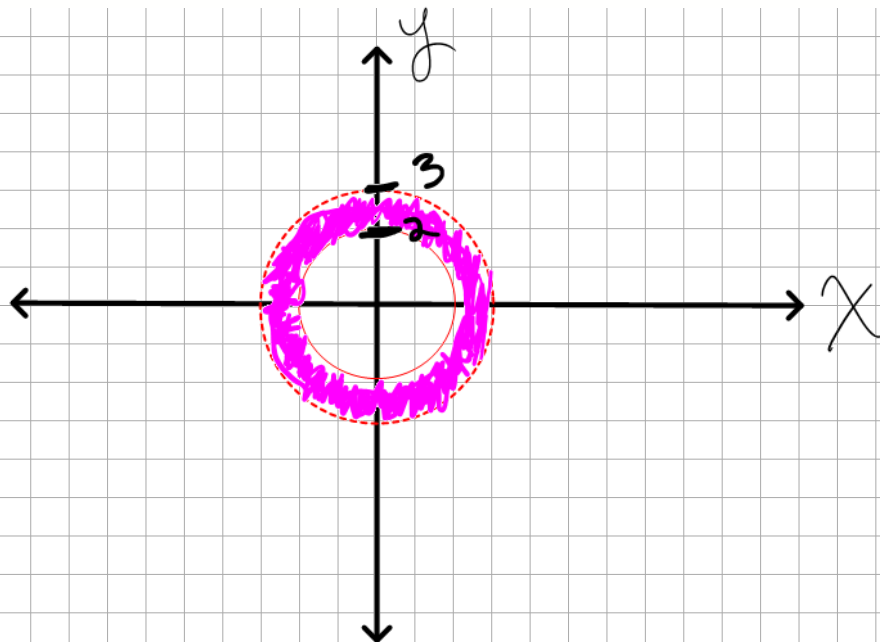
4. Survey(s)
   a. Office Hours Preferences
   b. Conference Activities
   c. Technical Questions
   d. Misc.

Example 1

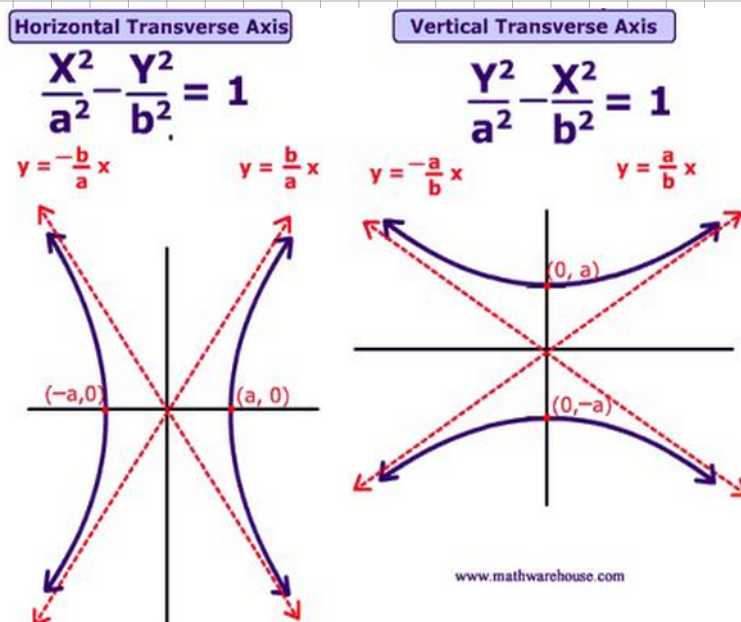Find and sketch a graph of the (natural) domain of the function

$$f(x, y) = \ln(\sqrt{5} - \sqrt{x^2 + y^2 - 4})$$

Example 2

Consider the level surface given by $x^2 - y^2 + z^2 = 2$. Make a plot for:

(a) the slice $x = 2$.
(b) the slice $x = 0$.

Horizontal Transverse Axis

$$\frac{X^2}{a^2} - \frac{Y^2}{b^2} = 1$$

$y = -\frac{b}{a}x$ $y = \frac{b}{a}x$

$(-a,0)$ $(a, 0)$

Vertical Transverse Axis

$$\frac{Y^2}{a^2} - \frac{X^2}{b^2} = 1$$

$y = -\frac{a}{b}x$ $y = \frac{a}{b}x$

$(0, a)$

$(0,-a)$

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Group Work

(a). Describe the domain of the function $f(x, y) = \sqrt{x} + \sqrt{y}$.

(b). Test out the whiteboard feature and your own microphone.

(c). Use the 'Ask for Help' button to summon the TA.