Happy Wednesday February 1st!!

Do Now:

1) Get out your desmos packet

2) Grab notes from back table

Feb 1-9:05 AM

Information

1) Formative on graphing on Friday (don't worry)

2) Test over graphing next Wednesday/Thursday

3) Reassessments the following week

Feb 1-9:23 AM

Today

1) Go over "big ideas" from Desmos

2) Start transformations notes (on exponentials)

3) Finish Notes for homework

Feb 1-9:25 AM

What we learned

* asymptote $y = 3^x + 6$

* Transformation $y = 3^x + 6 + 3$
$= 3^x + 9$

* Growth/Decay

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U3LT3

Exponential Graphs

Growth

Decay

$$y = ab^{x+h} + k$$

Have HORIZONTAL ASYMPTOTES

HA: $y = 6$

$$y = 3 \cdot 2^{x} + 6$$

y-int: $(0, 9)$ (x, y)

HA: $y = -4$ $(0, 8)$

$$y = 3 \cdot 2^{x+2} - 4$$

$y = 3 \cdot 2^{0+2} - 4$

$y = 3 \cdot 4 - 4$

Where is the asymptote? Where is the y-intercept?

Feb 1-9:26 AM

Logarithmic Graphs

$$y = \log_b(x + h) + k$$

Have VERTICAL ASYMPTOTES

$x = 0$

$$y = \log_2(x) + 3$$

$x = -3$

$$y = \log_2(x + 3) + 5$$

Where is the asymptote?

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$y = \log(x-2)$

$x = 2$

$y = \log(x+4) - 6$

$x = -4$

Feb 1-11:00 AM

Feb 1-10:13 AM

Describe the transformations that map onto each of the following functions.

$y = 2^x$

Does it move up? Down? Left? Right?

$y = 2^x - 2$

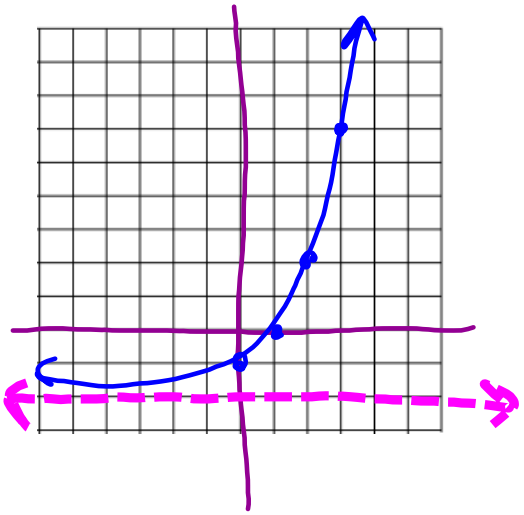
Down 2

Feb 1-9:34 AM

(2a)

$y = 2^x - 2$

x	y
0	-1
1	0
2	2
3	6



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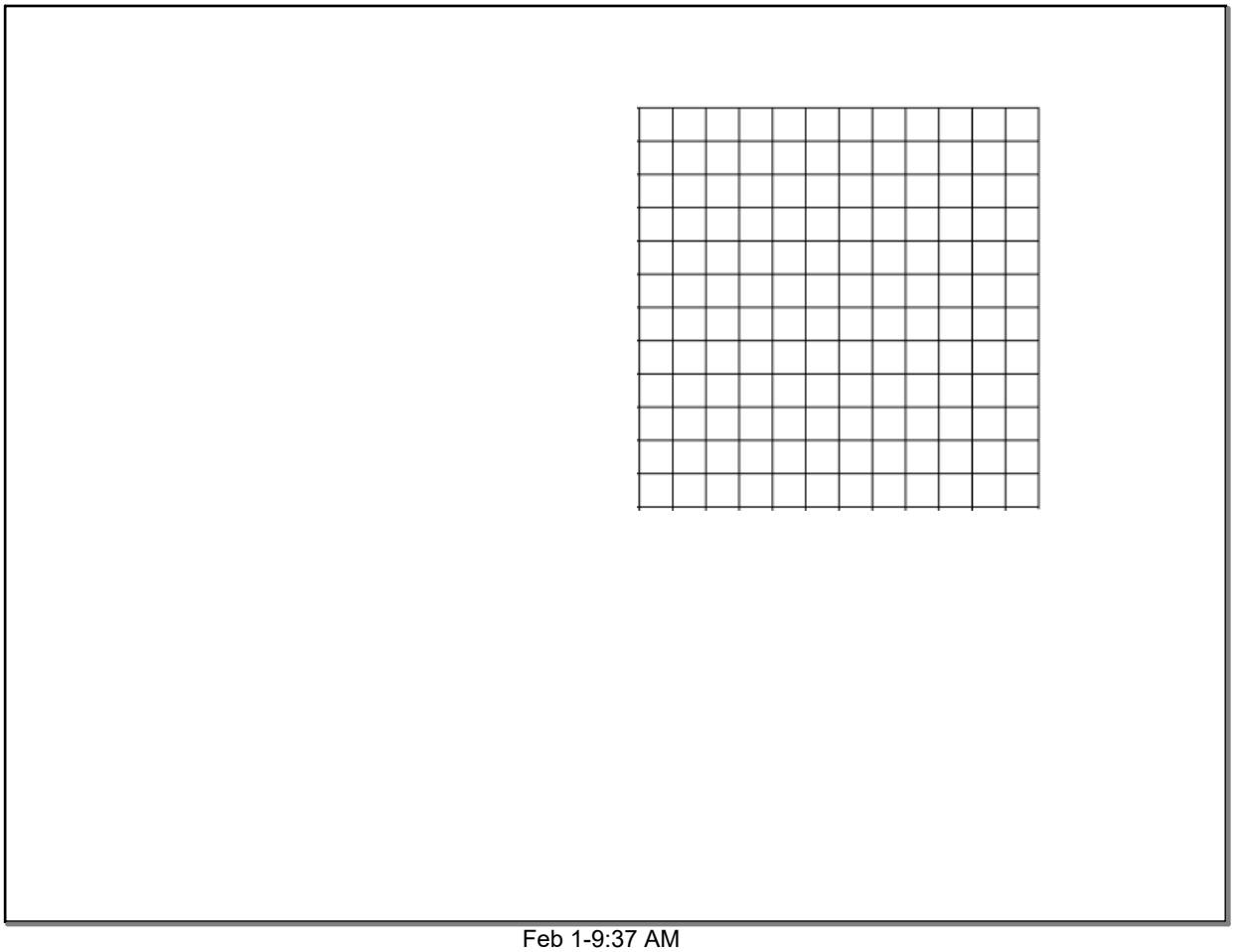

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