Today's Learning Goal(s):

By the end of the class, I will be able to:

a) apply all transformations to the parent functions.

1.8 Graphing $y=af[k(x-d)]+c$ (Day 2)

Date: _____
(**Every** lesson)

Ex.1 The following transformations are applied to the square root function. (i.e. $f(x)=\sqrt{x}$)

- Horizontal stretch by the factor 3
- Vertical stretch by the factor 2
- Reflection in the y-axis
- Translation 5 units right and 4 units up

Write the equation for the final transformed function $g(x)$.

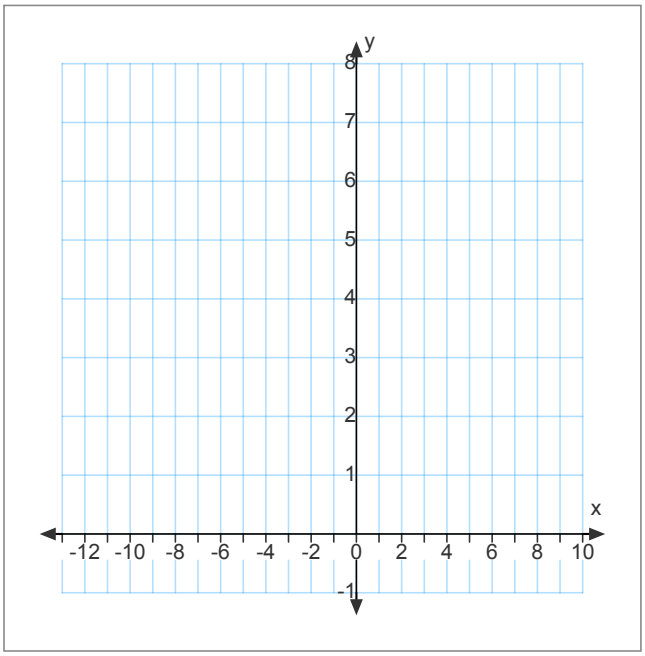
1.8 Graphing y=af[k(x-d)]+c (Day2)

Ex.2 a) Sketch the graphs of $f(x)$ and $g(x)$ on the same grid.

$$f(x) = \sqrt{x}$$

$$g(x) = \sqrt{-\frac{1}{3}(x-5)} + 4$$

(backwards world)



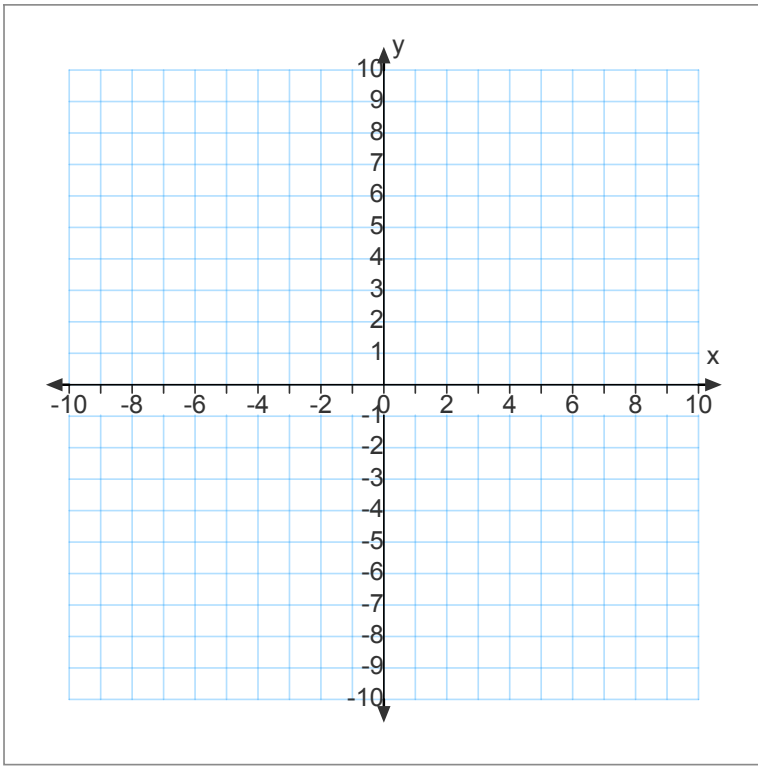
b) State the domain and range of both functions.

1.8 Graphing y=af[k(x-d)]+c (Day2)

Ex.3 For $f(x)=|x|$ sketch the graph of $g(x)=f(-5x+10)-2$.

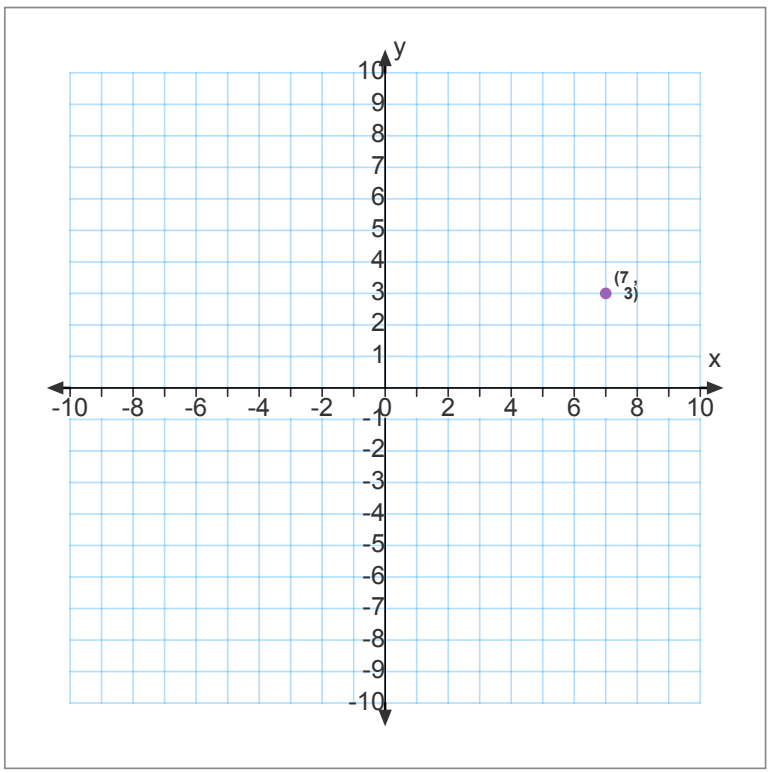
Remember: Factor first!

'backwards world)



Ex.4 Graph the function.

$$y = \frac{-2}{\frac{1}{3}(x-1)} + 4$$



one method is to map,
a few key points using just *a* & *k*,
then translate them.

$(\quad) \rightarrow (\quad)$

$(\quad) \rightarrow (\quad)$

$y =$

1.8 Graphing y=af[k(x-d)]+c (Day2)

Are there any Homework Questions you would like to see on the board?

Last day's work: p. 70 #1 – 3, 4abc, 5ab

Today's Homework Practice includes:

pp. 70-71 #4def, 5cd, 6a, 7a