Final Review Unit I Guided Notes

Name: _____

Date: 12/13/18 Period: _____

Wednesday, December 12th

UNIT 1 TRANSFORMATIONS REVIEW
(best thing to study for your final is study guides, quizzes, and tests)

Translations

- A translation is a rigid transformation when the image shifts up, down, right, left on the graph.
- Rule: Depends on where you are moving.
- Example: Translate the point A(3, 4) up 2 and right 4.

A'(7, 6)

Reflections- rigid transformation when image is mirrored over a line

- Over the x axis : (x,y) → '(x, -y)
- Over the y axis: (x,y) → '(-x, y)
- Over the line y=x: (x,y) → '(y, x)
- Over the line y=-x: (x,y) → '(-y, -x)
- when y= #: counting tech.
- when x=#: counting tech.

X axis is same as y = 0

y axis is x = 0

Rotations: rigid transformation when the image is being turned CW or CCW

- 360 degrees: $(x,y) \rightarrow (x,y)$
- 180 degrees: $(x,y) \rightarrow (-x,-y)$
- 270 degrees CCW or 90° CW: $(x,y) \rightarrow (y,-x)$ (DRIVE BUS)
- 270 degress CW or 90° CCW: $(x,y) \rightarrow (-y,x)$ (DRIVE BUS)

Dilation: non-rigid transformation when image gets bigger or smaller

- Dilation: $(x,y) \rightarrow (2x,2y)$

  ex: Dilate by SF of 2
- Horizontal stretch/shrink: $(x,y) \rightarrow (2x,y)$

  by SF of 2
- Vertical stretch/shrink: $(x,y) \rightarrow (x,2y)$

  by SF of 2

if image gets **larger the scale factor is $x > 1$ and if it gets **smaller** the scale factor is $0 < x < 1$

KAHOOT!

https://play.kahoot.it/#/k/e47fe754-f2d3-454f-afb2-97930a73b0a6