☐ Class Notes ☐ Textbook Notes

AVID Decades of College Dreams

Name: _____ Period: _____

Class: _____ Date: _____

TOPIC/OBJECTIVE: Scale Factor (dilations)

Essential Question: _____

Questions:	**Notes:**
What is a dilation?	a transformation that enlarges or reduces a figure.
2 types of dilations	Reduction & Enlargement
What is a scale factor?	ratio used to enlarge or reduce similar figures.
	When a scale factor is < 1 it is a reduction.
	When a scale factor is > 1 it is an enlargement.
How do you **apply** a scale factor?	you MULTIPLY!!
"A prime"	Ex 1: A(2,3), B(3,-1/2), C(5, 6) with a scale factor of 2 A' (4 , 6), B' (6 ,-1), C' (10 ,12)
	Ex 2: A(1,3), B(3,-6), C(9, 12) with a scale factor of 1/3 A' ($\frac{1}{3}$, 1), B' (1 ,-2), C' (3 ,4)
How do you find a scale factor:	You put **NEW** over **OLD**! $\frac{\text{new}}{\text{old}}$

Questions:	Notes:
	Ex 3: L(2, 4), M(4, 8), N(8,1) L'(1, 2), M(2, 4), N(4,1/2)
	What type of dilation? reduction
	new L'(1,2) 1/2 old L(2,4)
	What is the scale factor? 1/2
	Ex 4: G(5, 2), H(-3, 3), I(-4, -3), J(-2, 2) G'(12.5, 5), H'(-7.5, 7.5), I'(-10, -7.5), J'(-5, 5)
	What type of dilation? enlargement
	new: G'(12.5, 5) 5/2 = 2.5 old G(5, 2)
	What is the scale factor? 2.5
	12.5/5 = 2.5