

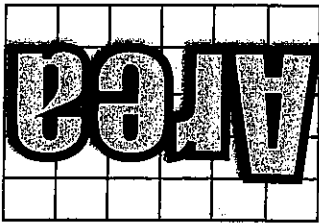
Similar Figures.

○ glue here

○ glue here

○ glue here

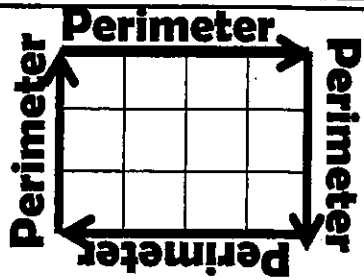
○ glue here



Number of square units
inside an object

AREA

Given the



Distance around
an object

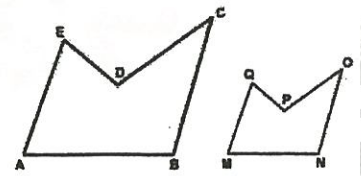
PERIMETER

Given the

Similar figures have the same shape but not the same size

Similar figures have congruent corresponding angles

Similar figures have proportional corresponding sides



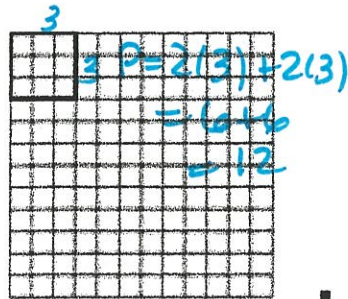
If the scale factor is....	Multiply the			
	Length by	Width by	Perimeter by	Area by
2	2	2	2	$2^2 = 4$
5	5	5	5	$5^2 = 25$
0.5	0.5	0.5	0.5	$(0.5)^2 = 0.25$
$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2}{3}$	$\frac{2^2}{3^2} = \frac{4}{9}$
k	k	k	k	k^2

Scale factor of 3.

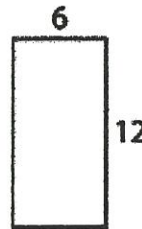
Perimeter 12

Scale factor 3

New Perimeter' 36



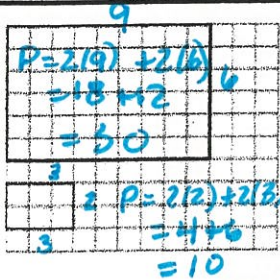
Scale factor = $\frac{1}{3}$



Area 72

Scale factor $\frac{1^2}{3^2} = \frac{1}{9}$

New Area' 8



Scale Factor $\frac{1}{3}$

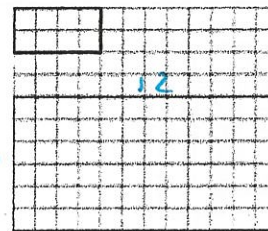
Perimeter 30

New Perimeter' 10

Perimeter x scale factor = new perimeter'

$$P \times SF = P'$$

Perimeter, including circumference, is a linear measurement (distance). When an image is dilated, its' perimeter is just multiplied by the scale factor.



Scale Factor 3

Area 8

New Area' 72

Area x (scale factor)² = new Area'

$$A \times SF^2 = A'$$

When an image is dilated, its' area is multiplied by the scale factor squared.