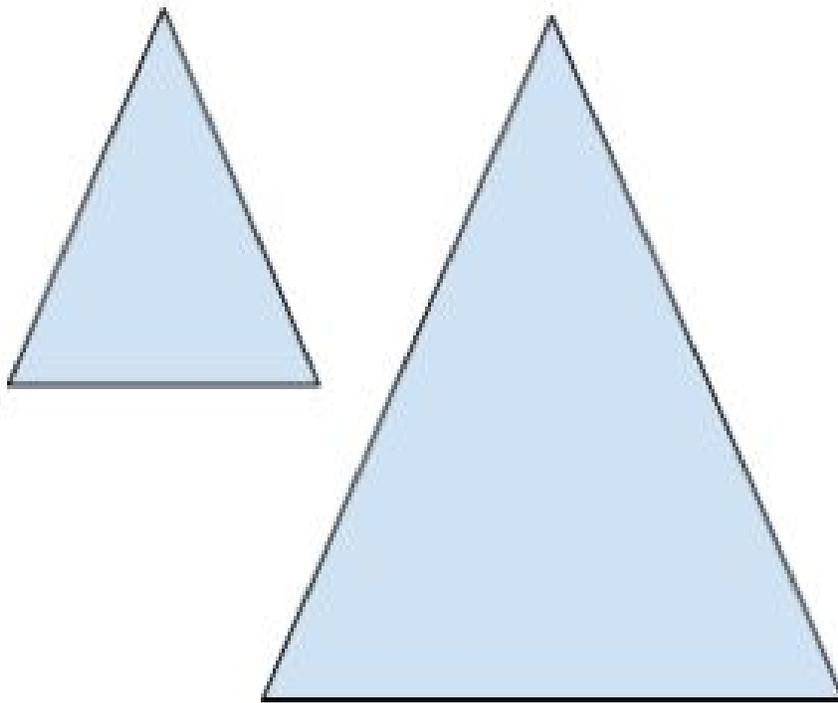


Applying Scale Factor  
Mini-Project



Name \_\_\_\_\_

## Applying Scale Factor

### Steps:

- 1.) Choose a given scale factor. (*Remember that an enlargement **always** has a scale factor greater than 1.0, and a reduction **always** has a scale factor between 0 and 1.0.*)
- 2.) Apply the scale factor to every measure of the original figure.  
(*Remember that anything you put into your calculator must be shown in your workspace!*)
- 3.) Redraw the new figure with the new measures.

Follow the steps given above if you get stuck. Use the directions on each page for each problem. Use the tables given to keep track of your work.

## EXAMPLE

### Directions:

Create an enlargement **and** a reduction for the original figure given.

For the enlargement, use a scale factor of 3.

For the reduction, use a scale factor of 0.5.

Apply each scale factor to every measure of the original figure. Use the table below to keep track of your work.

Redraw the new figure with the new measures on a separate sheet of graph paper.

### Enlargement

	Original	Scale Factor	New Figure	WorkSpace
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		

### Reduction

	Original	Scale Factor	New Figure	WorkSpace
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		

### Problem 1.)

#### Directions:

Create an enlargement **and** a reduction for the original figure given.

For the enlargement, use a scale factor 2.

For the reduction, use a scale factor of 0.5.

Apply each scale factor to every measure of the original figure. Use the table below to keep track of your work.

Redraw the new figure with the new measures on a separate sheet of graph paper.

#### **Enlargement**

	Original	Scale Factor	New Figure	WorkSpace
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		

#### **Reduction**

	Original	Scale Factor	New Figure	WorkSpace
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		

**Problem 2.)**Directions:

Create an enlargement **and** a reduction for the original figure given.

For the enlargement, use a scale factor 4.

For the reduction, use a scale factor of 0.5.

Apply each scale factor to every measure of the original figure. Use the table below to keep track of your work.

Redraw the new figure with the new measures on a separate sheet of graph paper.

**Enlargement**

	Original	Scale Factor	New Figure	Work Space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		

**Reduction**

	Original	Scale Factor	New Figure	Work Space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		

**Problem 3.)**Directions:

Create an enlargement **and** a reduction for the original figure given.

For the enlargement, use a scale factor 3.

For the reduction, use a scale factor of 0.5.

Apply each scale factor to every measure of the original figure. Use the table below to keep track of your work.

Redraw the new figure with the new measures on a separate sheet of graph paper.

**Enlargement**

	Original	Scale Factor	New Figure	Work Space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		

**Reduction**

	Original	Scale Factor	New Figure	Work Space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		

**Problem 4.) Extension**

Directions: Create an enlargement **and** a reduction for the original figure given.

For the enlargement, use a scale factor 2.

For the reduction, use a scale factor of 0.5.

Apply each scale factor to every measure of the original figure. Use the table below to keep track of your work.

Redraw the new figure with the new measures on a separate sheet of graph paper.

You may need more than one sheet of graph paper for the enlargement, you can tape them together if needed.

**Enlargement**

	Original	Scale Factor	New figure	Work space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		
Measure G		X_____ =		
Measure H		X_____ =		
Measure I		X_____ =		
Measure J		X_____ =		
Measure K		X_____ =		
Measure L		X_____ =		
Measure M		X_____ =		
Measure N		X_____ =		
Measure O		X_____ =		

## Reduction

	Original	Scale Factor	New figure	Work space
Measure A		X_____ =		
Measure B		X_____ =		
Measure C		X_____ =		
Measure D		X_____ =		
Measure E		X_____ =		
Measure F		X_____ =		
Measure G		X_____ =		
Measure H		X_____ =		
Measure I		X_____ =		
Measure J		X_____ =		
Measure K		X_____ =		
Measure L		X_____ =		
Measure M		X_____ =		
Measure N		X_____ =		
Measure O		X_____ =		