

# Unit 5.1: Space and volume



# Form or Volume.

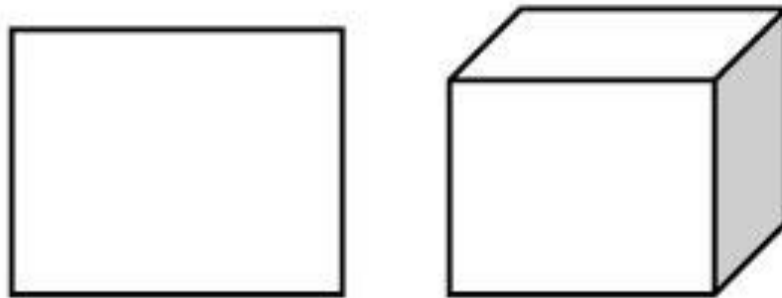
What is a form?

Do you remember what a geometric shape is? Name me some.

Form is an element of art. At its most basic, a form is a three-dimensional geometrical figure (i.e.: sphere, cube, cylinder, cone, etc.), as opposed to a shape, which is two-dimensional, or flat.

A form always has three dimensions; length, width and height. When you stand next to an object you can go round it and see the three dimensions.

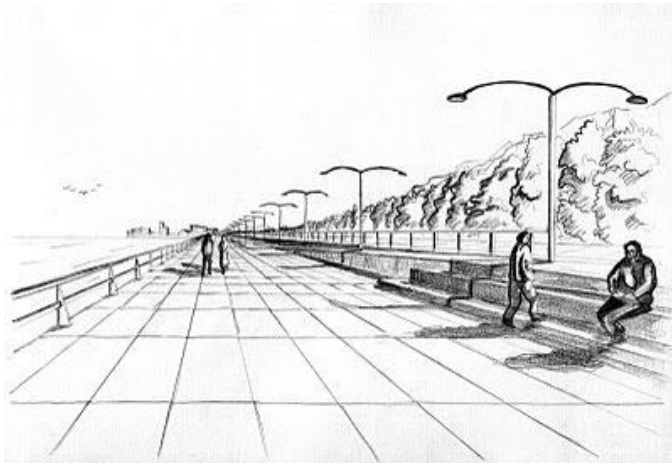
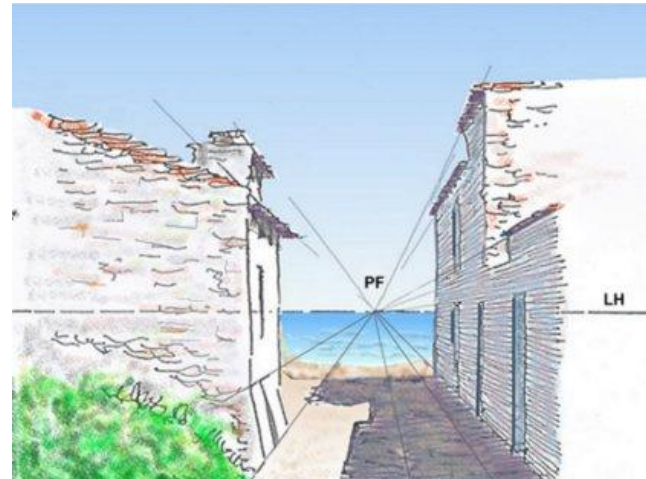
Volume (three-dimensionality) can be simulated in a two-dimensional work (like a drawing) thanks to the use of light and shadows, perspective, etc.



VOLUME = A SHAPE IN THREE DIMENSIONS

# 1. Ways to create the illusion of space.

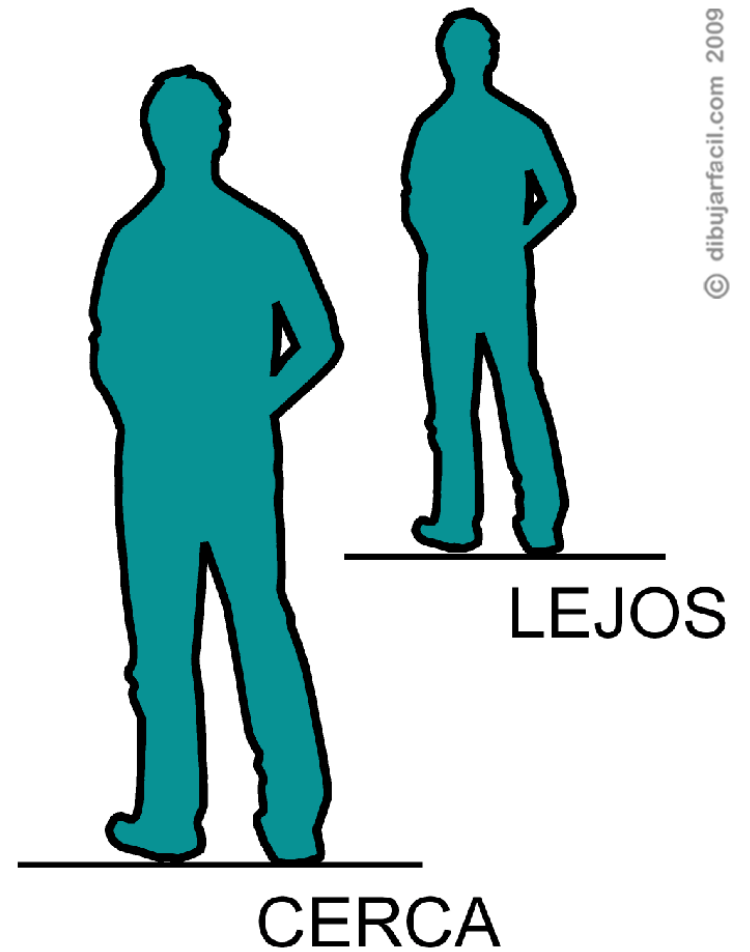
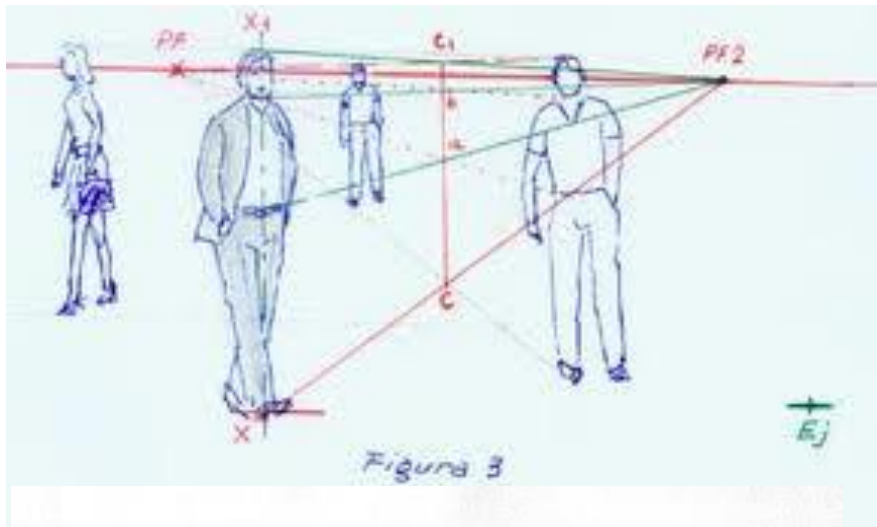
## 1. Linear perspective



## 2. Overlapping



### 3. Size.



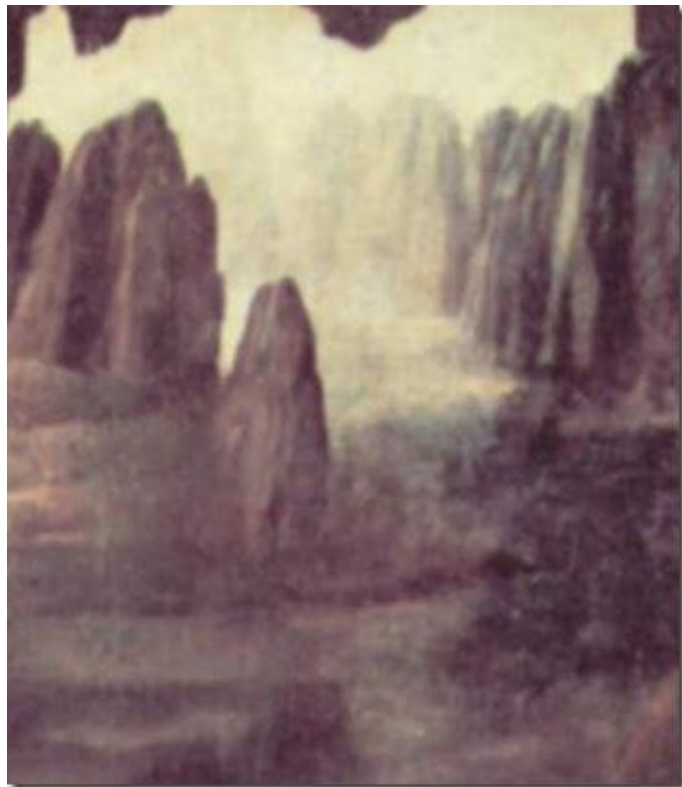
## 4. Placement.



## 5. Value and colour.



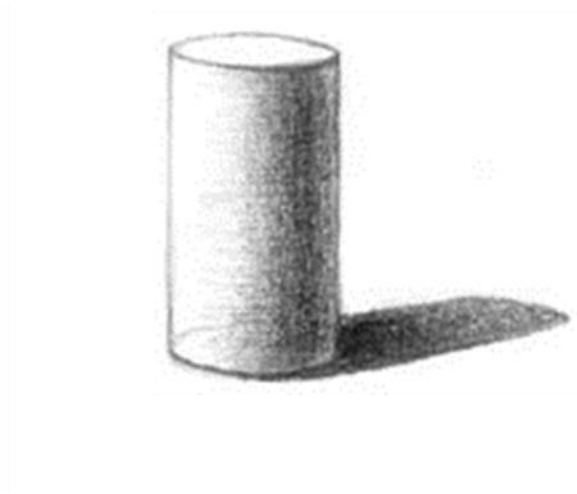
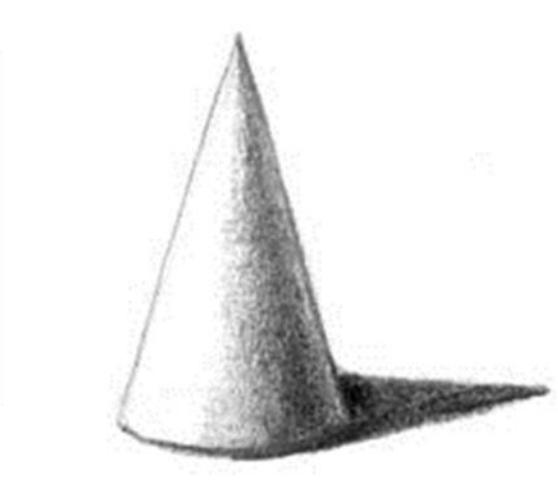
## 6. Detail





## 2. Chiaroscuro.

**I'd like to show how an understanding of chiaroscuro (the illusion of 3D space on a 2D surface using light and dark shapes).**



In this drawing you can see how a 2D shape at left can become 3D form at right by following some simple rules.

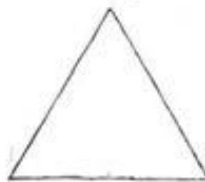
### Shapes



Circle



Square

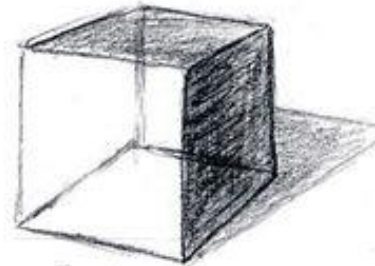


Triangle

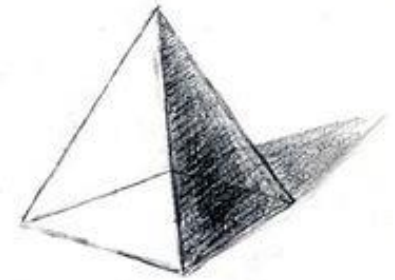
### Forms



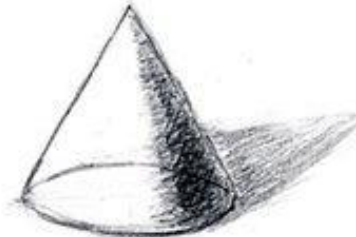
Sphere



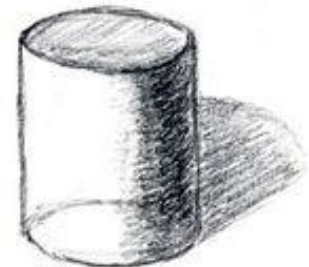
Cube



Pyramid

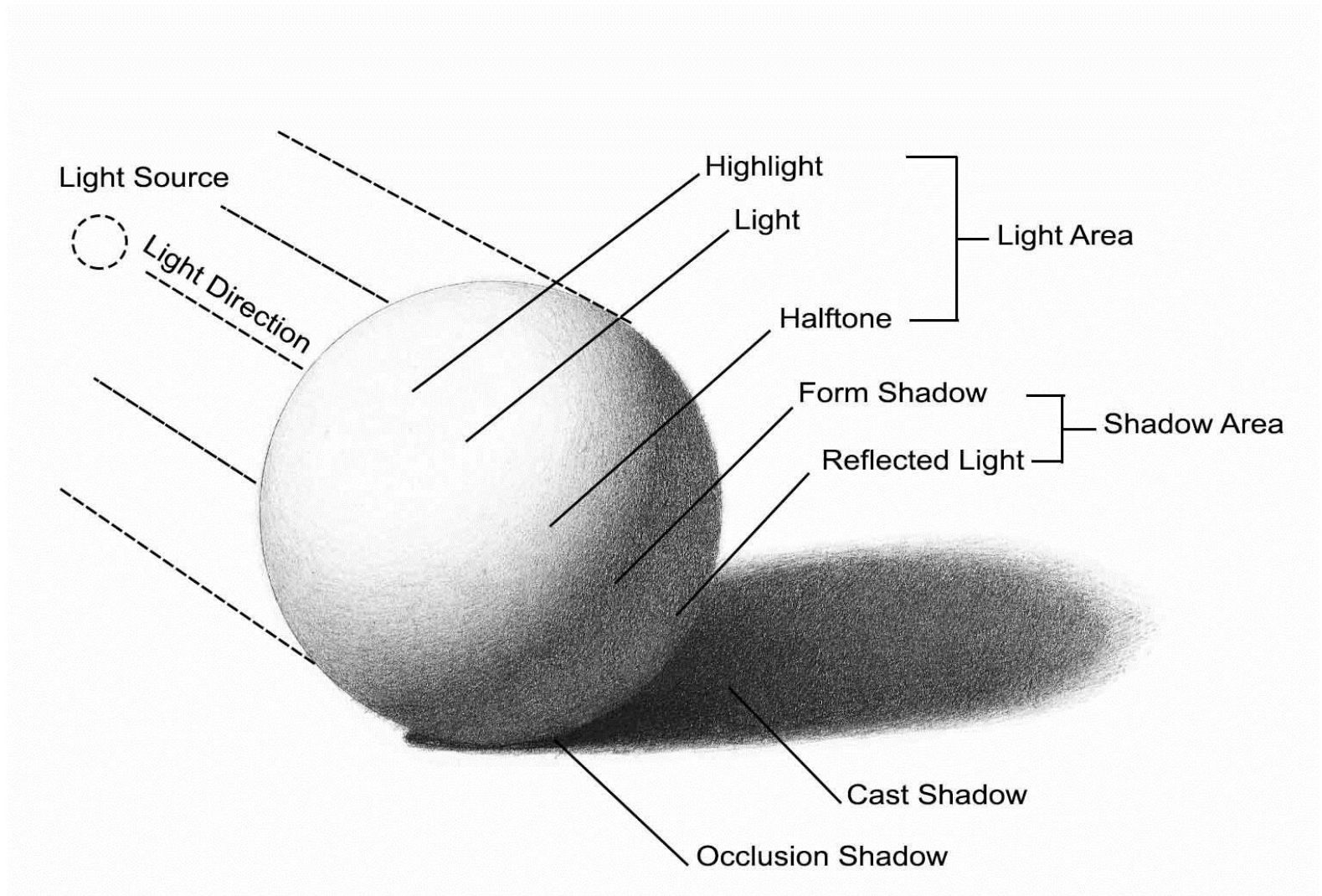


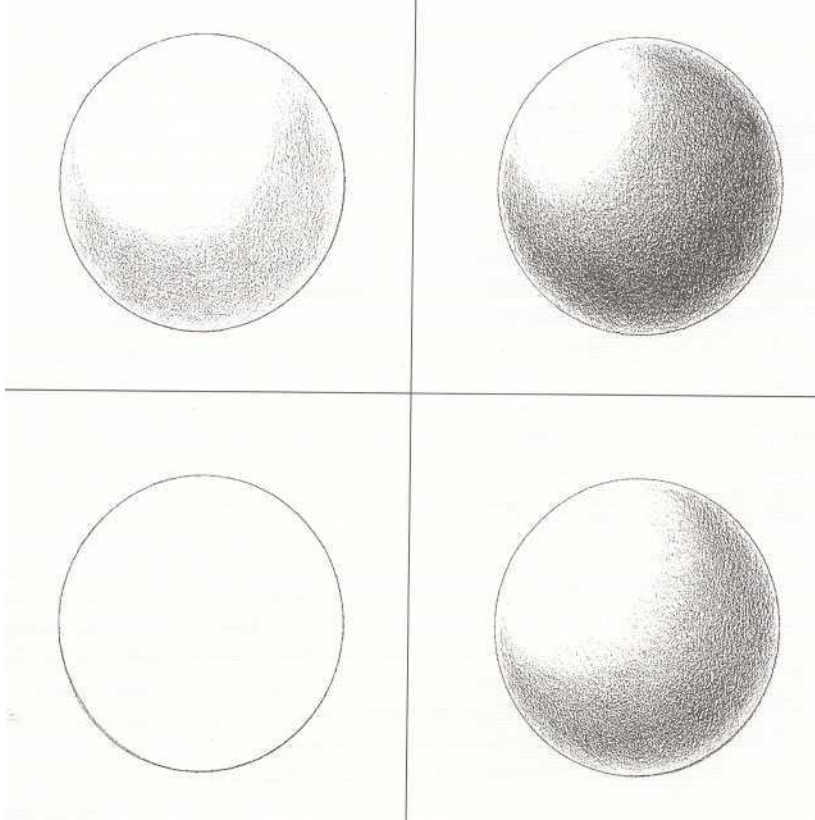
Cone



Cylinder

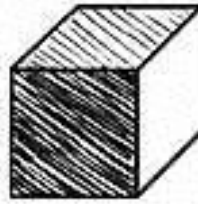
# Light and shadow





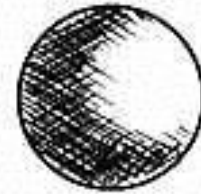
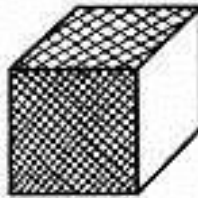
# Shading!

Hatching



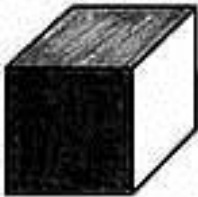
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Crosshatching



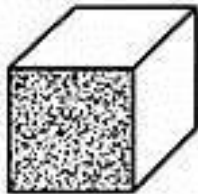
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Blending



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Stippling



# The Illusion of Space: Shading

We use LINE to create VALUE.

VALUE is... \_\_\_\_\_



This is a value scale, showing 8 degrees of gray between white and black.

When we shade, we:

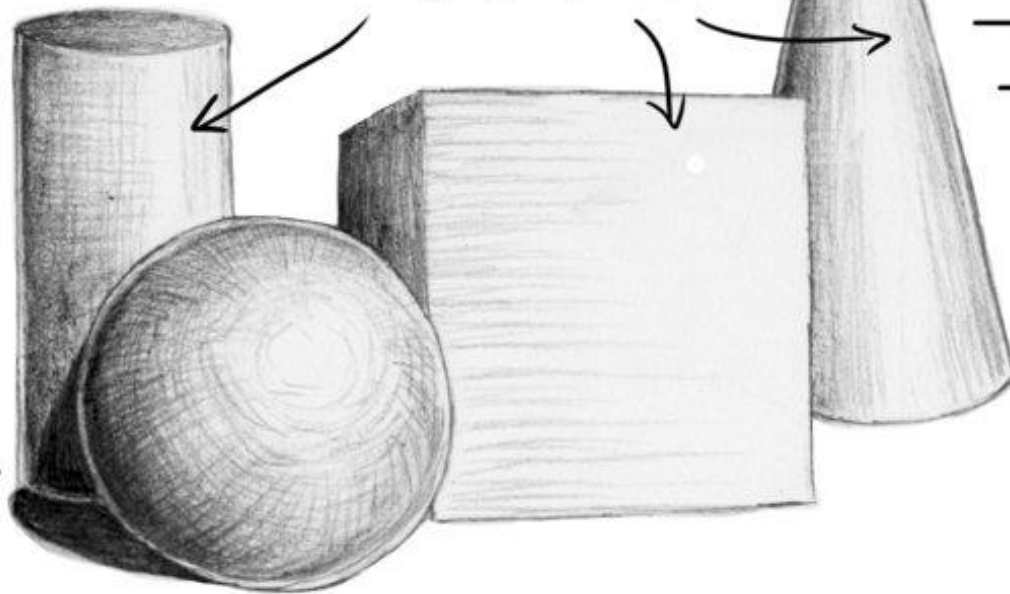
- ★ go light to dark
- ★ follow the contour of the object
- ★ vary the pressure on our pencil

Highlight (white)

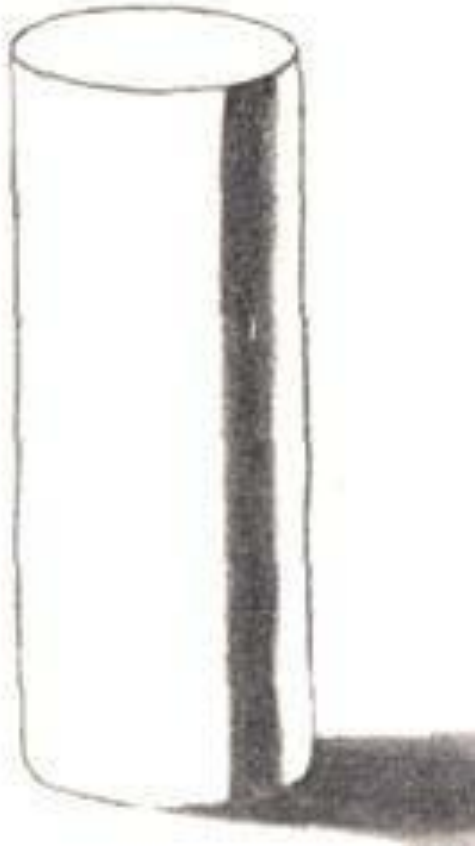
Light source:  
\_\_\_\_\_  
\_\_\_\_\_

Note that this picture has several values between black and white.

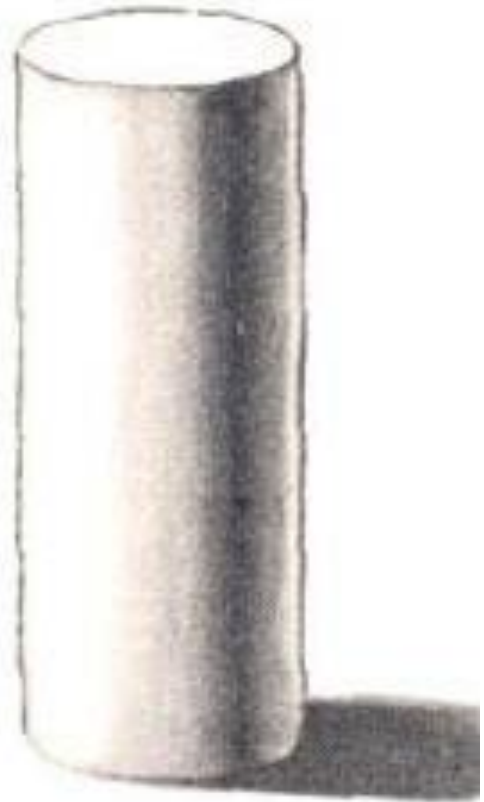
Cast shadow (black)



What is the difference between SHAPE and FORM?  
\_\_\_\_\_



no



yes



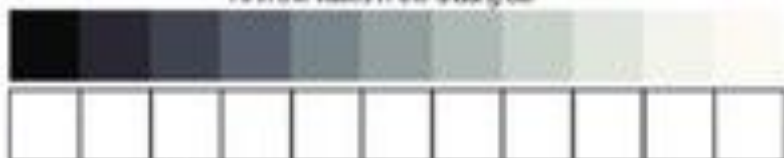


Name \_\_\_\_\_

Class \_\_\_\_\_

### 3D Shading worksheet

Fill in the values in the shading bar



Use the values in the shapes above to shade these



Use a pencil to create 8 values/shades blending smoothly from light to dark



Use the values in the shading bar above to shade these shapes in a blended gradient



Thanks!!!  
Any question?

