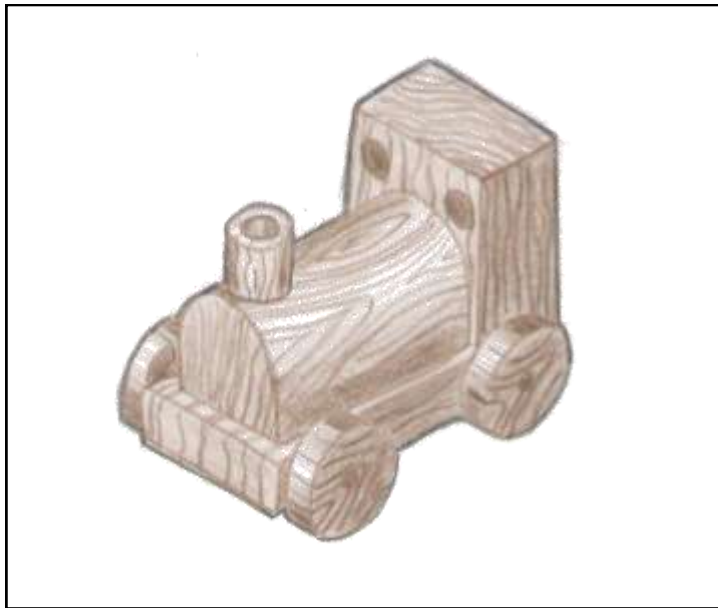


# INTRODUCTION TO MANUAL GRAPHICS

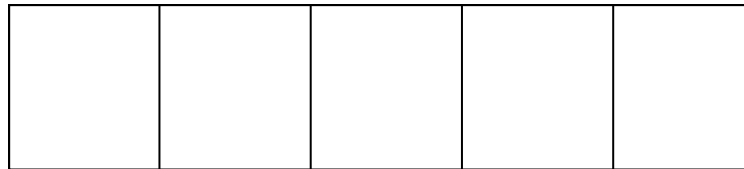
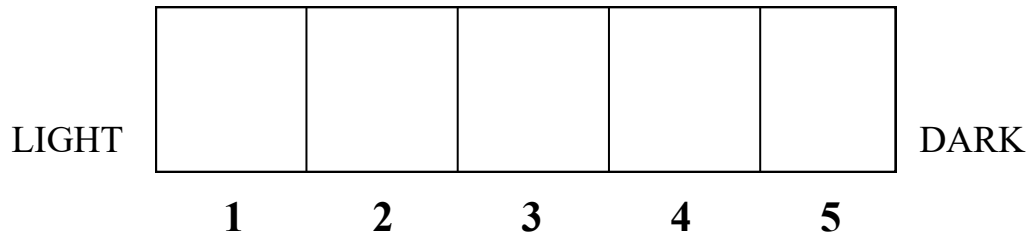
S1 / S2



SHADING  
RENDERING  
SKETCHING  
FORM  
PERSPECTIVE

# SHADING

- 1) **TRACE THE TONAL SCALE CHART BELOW. SHADE USING COLOURED AND HB PENCILS.**



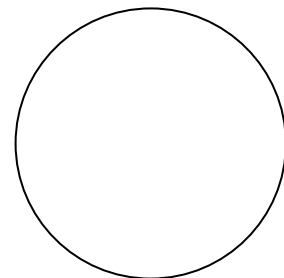
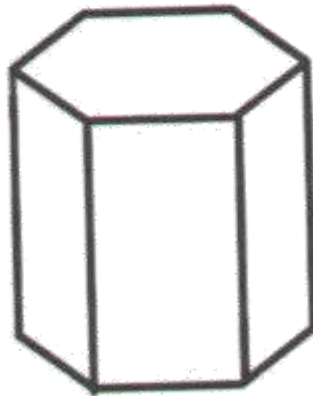
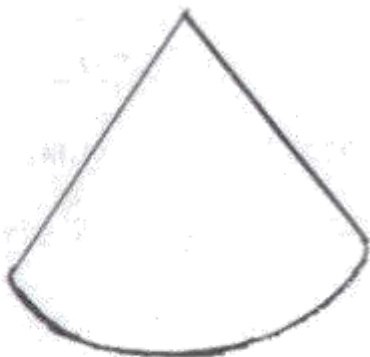
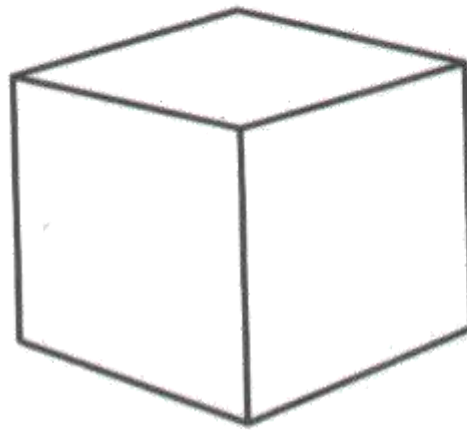
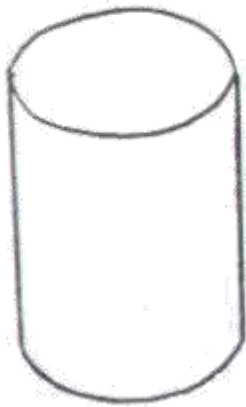
**USE FIG.1 TO HELP YOU SHADE YOUR OWN BOXES**

Fig 1.



# SHADING SHAPES

- 3) **TRACE AND RENDER THE SHAPES BELOW USING THE EXAMPLES AT THE BOTTOM OF THE PAGE TO HELP YOU.**



CUBE



PRISM



PYRAMID



CONE



CYLINDER



SPHERE

# MATERIALS

**DRAW OR TRACE THE EXAMPLES BELOW  
AND COPY THE RENDER TO MAKE FLAT  
SURFACES REPRESENT THE FOLLOWING  
MATERIALS.**

FIG.1  
WOOD



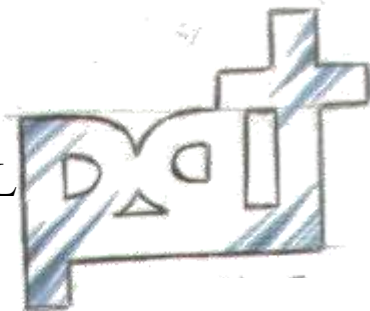
FIG.2  
SHINY PLASTIC

FIG. 3  
REFLECTIVE  
SURFACE



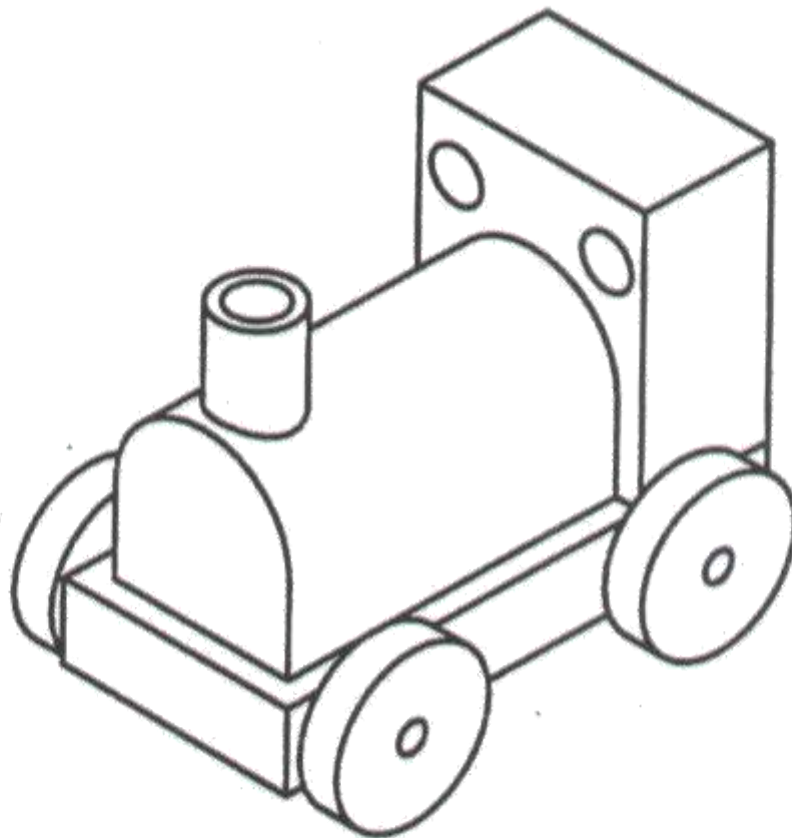
FIG. 4  
ROUNDED  
HIGHLIGHTS

FIG. 5  
SHINY METAL

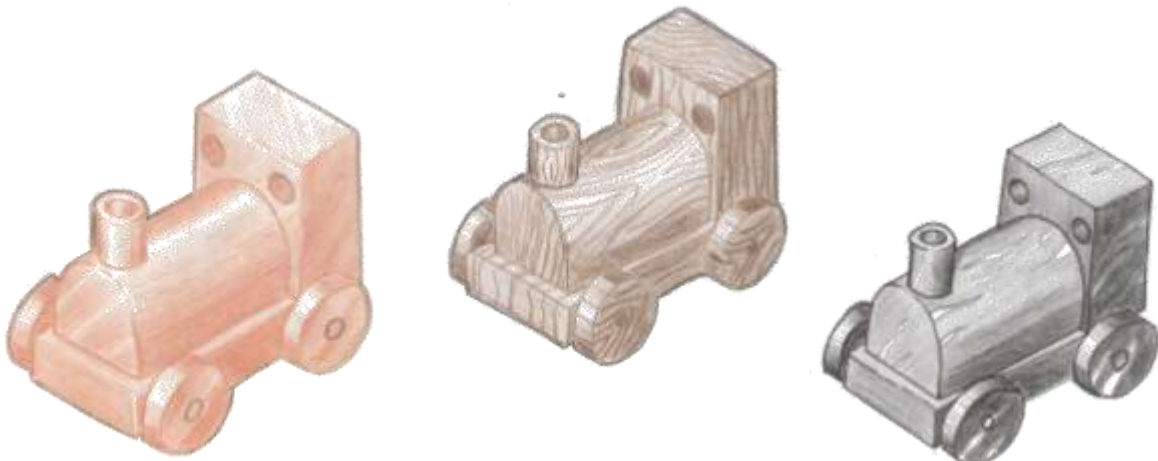


# **RENDERING**

**TRACE THE TRAIN BELOW AND RENDER TO MAKE IT LOOK LIKE WOOD, PLASTIC OR SHINY METAL. USE THE EXAMPLES ON PREVIOUS PAGE TO HELP YOU.**



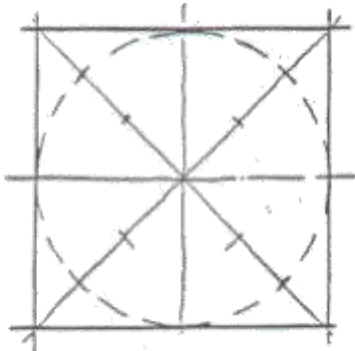
**isometric view**



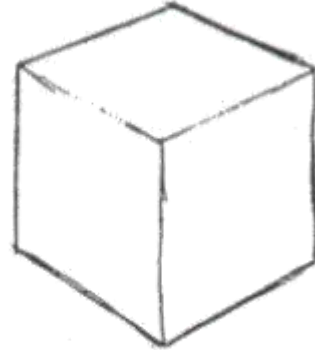
# **FORM**

**FORM IS THE 3-D IMAGE OF AN OBJECT**

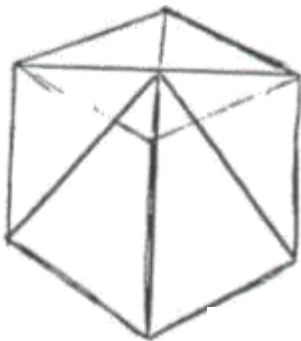
**SPHERE**



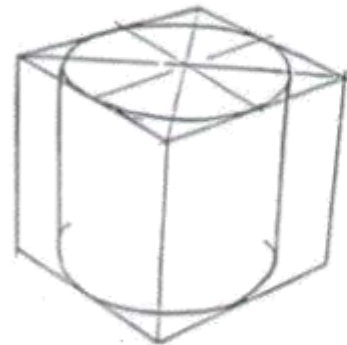
**CUBE**



**COMBINE THE CUBE AND  
CIRCLE TECHNIQUE TO  
PRODUCE A CYLINDER.**



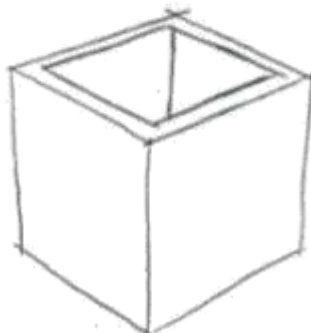
**PYRAMID**



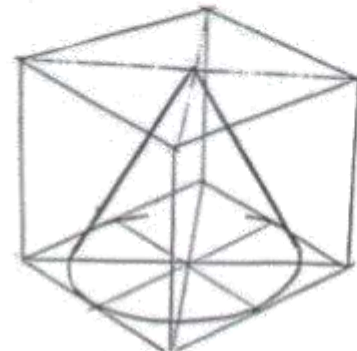
**CYLINDER**

**ATTEMPT THESE SHAPES BELOW**

**BOX**

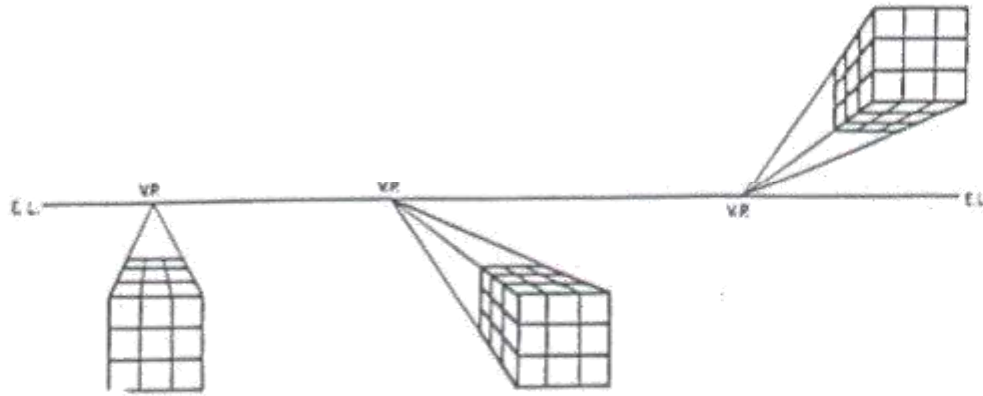


**CONE**

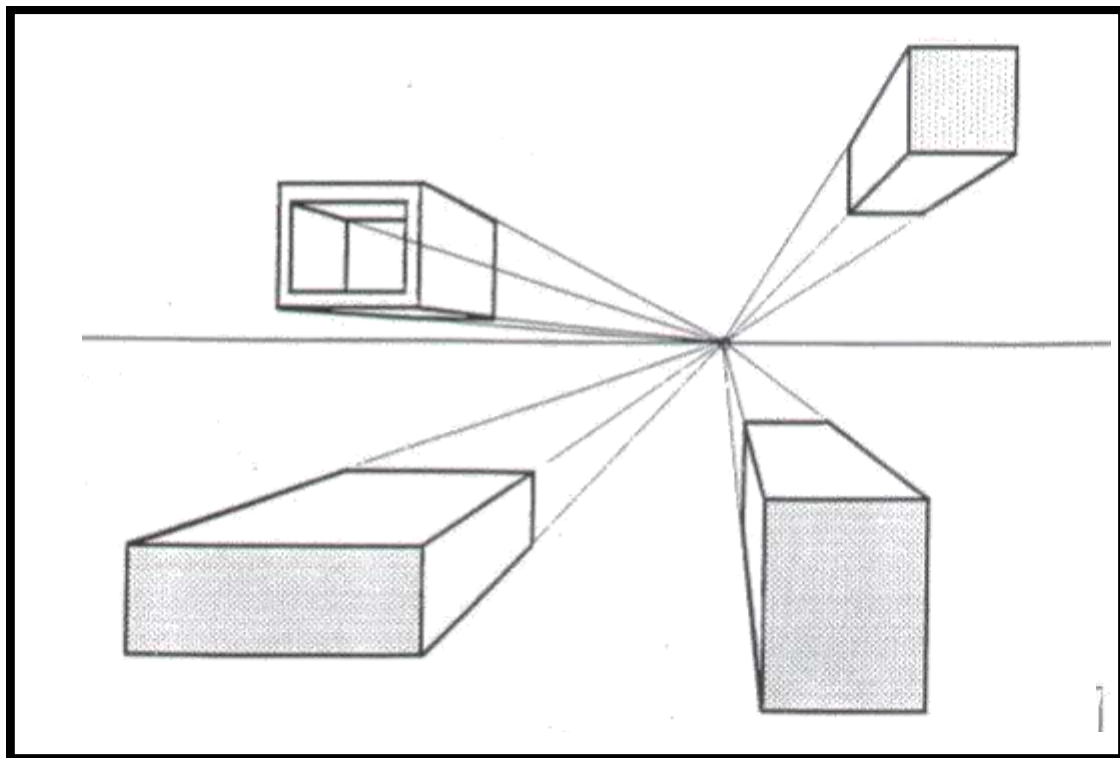


# **1 POINT PERSPECTIVE**

**SKETCHING IN PERSPECTIVE IS THE BEST WAY TO MAKE YOUR DRAWING LOOK REALISTIC. ONE POINT PERSPECTIVE USES ONLY ONE VANISHING POINT. (V.P.)**

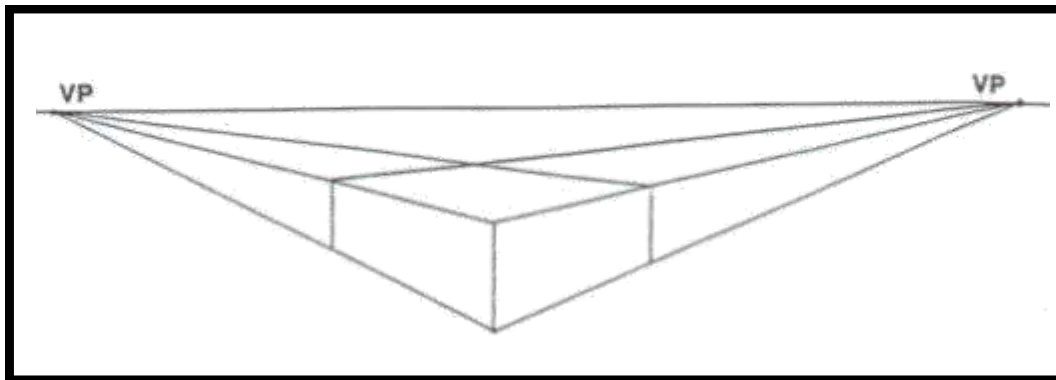


**DRAW SOME BOXES OF DIFFERENT SHAPES AND SIZES ON A4 PAPER.**



# **2 POINT PERSPECTIVE**

**TWO POINT PERSPECTIVE SKETCHING USES TWO VANISHING POINTS.(V.P.) IT LETS YOU SKETCH BUILDINGS AND OBJECTS AT ANY ANGLE.**



**ON A4 PAPER SKETCH SOME BOXES IN DIFFERENT POSITIONS**

