Math 116: Written Homework Assignment

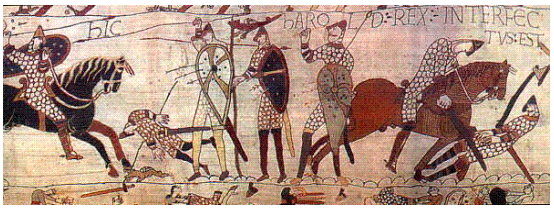
This homework set is due Tuesday, December 1st . Show work when possible. Answers magically appearing with no work receive no credit.

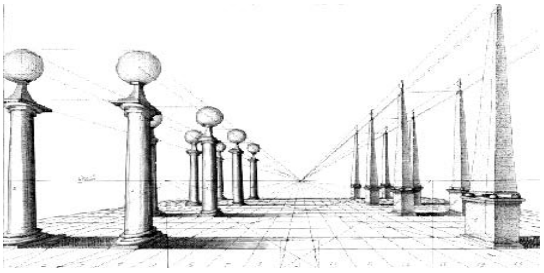
1. Enter the letter of the image below that best matches the perspective description. This is the list of perspectives:

   ☐ **i.** Atmospheric Perspective ☐ **ii.** Not very much perspective is used

   ☐ **iii.** Overlapping Shapes ☐ **iv.** One-point Perspective

   This is the permuted list of answers (click on the given image to make larger):

a. 

b. 

c. 

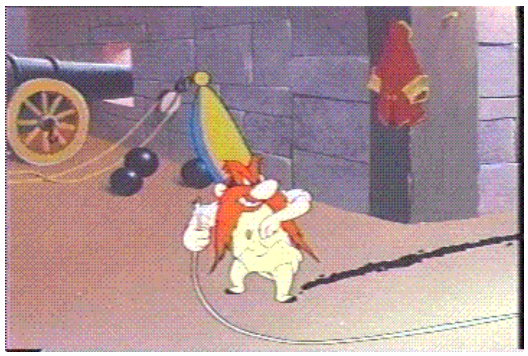
d. 

2. Enter the letter of the image below that best matches the perspective description. This is the list of perspectives:

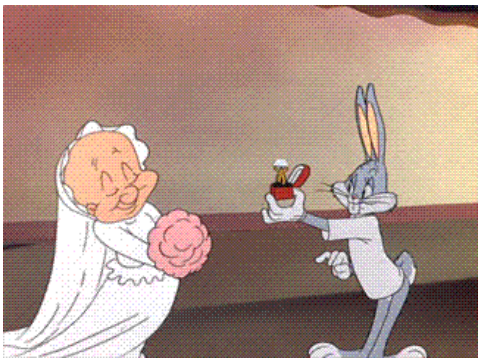
☐ **i.** Not very much perspective is used
☐ **ii.** Atmospheric Perspective
☐ **iii.** Overlapping Shapes
☐ **iv.** Diminishing Sizes.
☐ **v.** One-Point Perspective

This is the permuted list of answers (click on the given image to make larger):

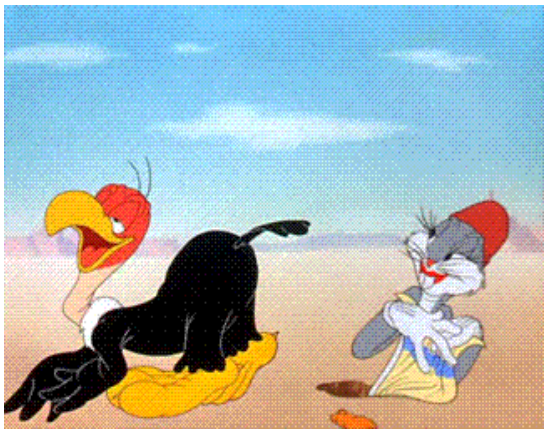
a.



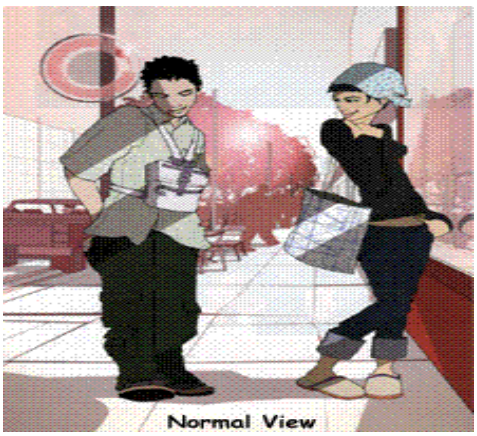
b.



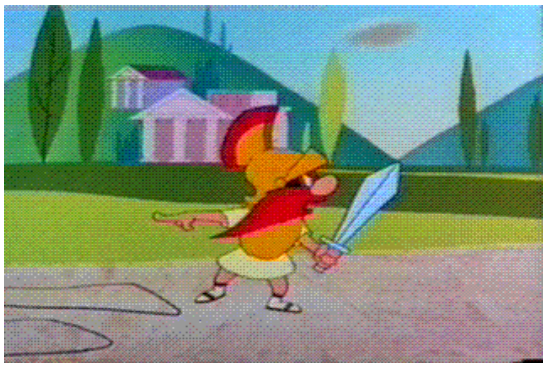
c.



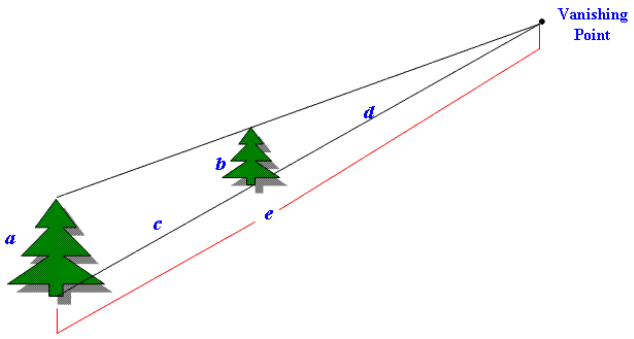
d.



e.



3. Use the following picture and the values of *a*, *b*, *c*, *d*, and *e* to find the missing values. Round your answer to 2 decimal places.

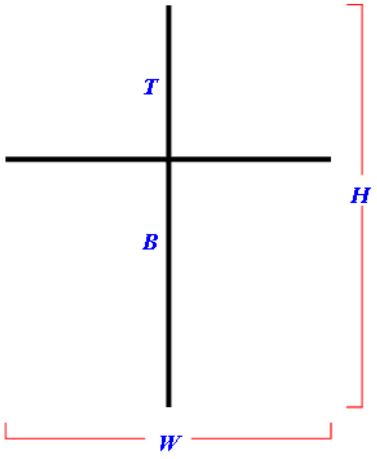


a. If a =10 in, d = 18 in, and e = 30 in, find b and c.

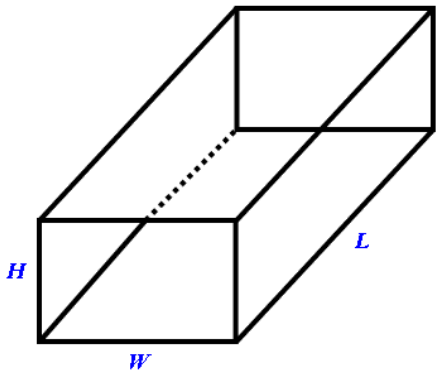
b. If a =5 in, b = 3 in, and e = 12 in, find c and d.

4. Suppose one dimension of a Golden Rectangle is 85 cm. Rounding your answer to one decimal place and using the approximation $\varphi \approx 1.62$ for the Golden Ratio, find the two other possible values for the other dimension of the Golden Rectangle.

5. Find the width *W*, bottom section *B*, and top section *T* of the Golden Cross, using the approximation $\varphi \approx 1.62$ for the Golden Ratio (rounded to one digit to the right of the decimal place) if the height of the cross is $H = 132$ cm.



6. Using the picture below representing a Golden Box and the approximation $\varphi \approx 1.62$ for the Golden Ratio, find the missing dimensions for the given dimension. Round your answer to one decimal place.



a. Find the width *W* and length *L* of the box if the height of the box is *H* = 325 cm.

b. Find the width *W* and height *H* of the box if the length of the box is *L* = 67 cm.