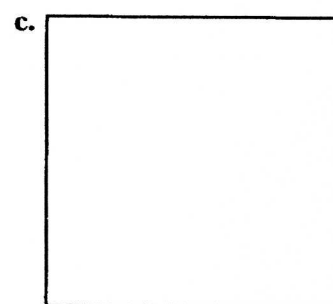
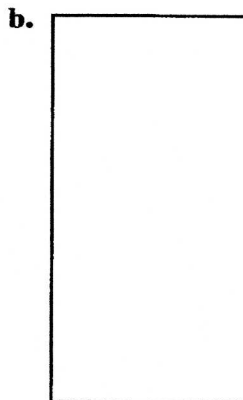
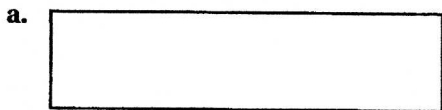


## Scale Drawings: Changing the Size v-ld

Tom's back yard is a rectangle 100 ft long and 50 ft wide. Measure the rectangles below. Which of them can be a scale drawing of Tom's back yard? What is the scale?



Only figure **b** can be a scale drawing of Tom's back yard. Figure **a** is too narrow, and figure **c** is too square. Tom's back yard is twice as long as it is wide, and so is figure **b**.

In a scale drawing, the shape is the same as the actual object. The drawing is smaller or larger.

Since figure **b** is 1 in. wide, and Tom's yard is 50 ft wide, the drawing has a scale of 1 in. = 50 ft.

Two trees in the yard are 1.5 in. apart on the drawing. How far apart are the actual trees? Write a proportion.

$$\frac{1}{50} = \frac{1.5}{d}$$

$$d \times 1 = 50 \times 1.5$$

$$d = 75$$

←  $\left\{ \begin{array}{l} \text{Compare inches to feet. The scale is} \\ \frac{1 \text{ in.}}{50 \text{ ft}} \text{ The distance between} \\ \text{the trees is } d \text{ ft.} \end{array} \right.$

The trees are 75 ft apart.

Find the missing dimension.

1. scale: 1 in. = 2 ft  
drawing length: 5 in.

actual length: \_\_\_\_\_ ft

2. scale: 1 in. = 6 ft  
drawing length: 2 in.

actual length: \_\_\_\_\_ ft

3. scale: 1 in. = 20 ft  
drawing length: \_\_\_\_\_ in.

actual length: 100 ft

4. scale: 10 cm = 3 mm  
drawing length: 5 cm

actual length: \_\_\_\_\_ mm