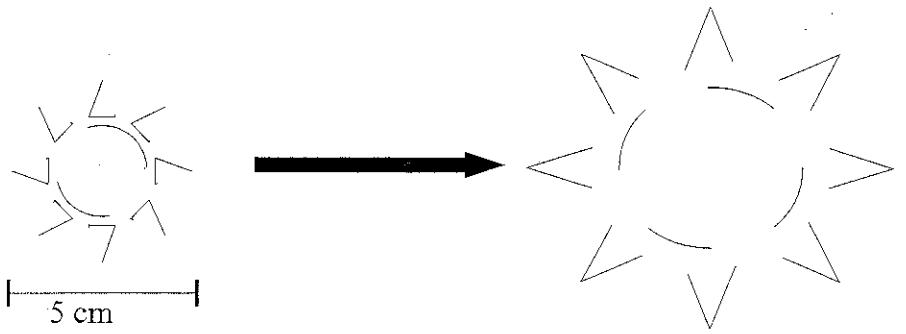
Math 10 Apprenticeship and Workplace
Scale factor

Name:_____

1. What does a scale factor smaller than 1 represent?

A reduction.

2. The following shape is enlarged as shown below, what is the scale factor of the enlargement?



$\frac{10}{5} = 2$

3. A drawing is reduced using a scale factor of 0.4. If the original drawing was 20 inches by 1 foot, what are the dimensions of the new drawing?

$20'' \times 0.4 = 8''$

$1' \times 0.4 = 0.4'$

OR

$12'' \times 0.4 = 4.8''$

8" by 0.4'

OR

8" by 4.8"

4. A 10" x 10" picture is enlarged to be 60% longer and wider.

a) What will the enlarged dimensions be?

Find 60% of 10 → $\frac{60}{100} = \frac{x}{10}$ $x = 6"$

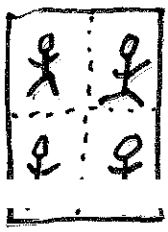
So 60% more would be $10" + 6" = 16"$

$16" \times 16"$

b) What will the scale factor of the enlargement be?

Scale factor $= \frac{new}{old} = \frac{16}{10} =$ (1.6)

5. A 15 inch by 15 inch picture is to be reduced so that 4 identical copies will fit on a single piece of 11.5 inch by 8 inch paper, what scale factor should be used?



Limiting factor will be the 8 inch side of the paper,

each reduced copy will have a width of $\frac{8}{2} = 4$ in

Since image is a square length will also be 4 in.

Scale factor $= \frac{new}{old} = \frac{4}{15} =$ (0.27)