Similar Polygons

1. Name the corresponding angles and sides on the following figures:
   a) ΔABC and ΔDEF

∠A = ∠_____

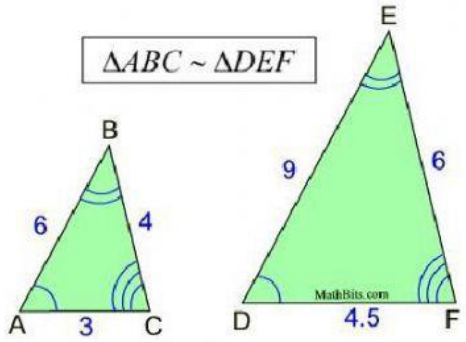
∠B = ∠_____

∠C = ∠_____

$\overline{AB}$ = ____

$\overline{BC}$ = ____

$\overline{CA}$ = ____



   b) polygon JKLM and polygon QNOP

∠J = ∠_____

∠K = ∠_____

∠L = ∠_____

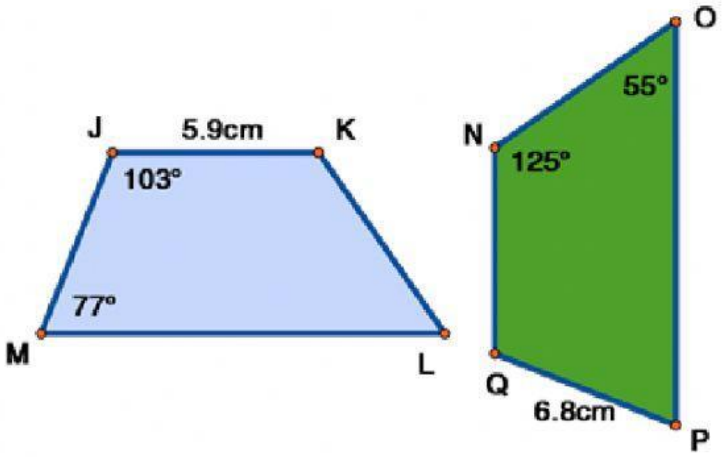
∠M = ∠_____

$\overline{JK}$ = ____

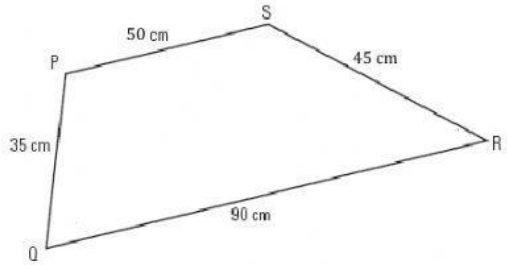
$\overline{KL}$ = ____

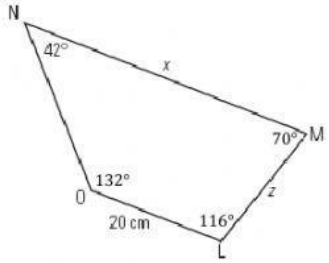
$\overline{LM}$ = ____

$\overline{MJ}$ = ____



2. If trapezoid PQRS is similar to trapezoid LMNO:
   a) What are the values of ∠P, ∠S, ∠R, and ∠Q?





∠P = _____°

∠S = _____°

∠R = _____°

∠Q = _____°

   b) What are the values of $\overline{LM}$, $\overline{MN}$, $\overline{NO}$, and $\overline{OL}$?

Scale Factor: —— = _____
fraction number/decimal

$\overline{LM}$ = _____ cm

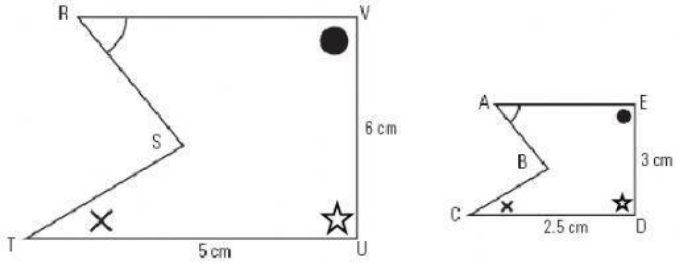
$\overline{MN}$ = _____ cm

$\overline{NO}$ = _____ cm

$\overline{OL}$ = _____ cm

LIVEWORKSHEETS

3. Are the two pentagons shown below similar? (Angles marked with the same symbol are equal.)



a) corresponding angles **∠R and ∠**____ _____

corresponding angles **∠V and ∠**____ _____

corresponding angles **∠U and ∠**____ _____

corresponding angles **∠T and ∠**____ _____

b) the scale factor for $\overline{VU}$ and its corresponding side is:

____ = _____

fraction number/decimal

the scale factor for $\overline{UT}$ and its corresponding side is:

____ = _____

fraction number/decimal

_____, they _____ similar because all corresponding angles are _____ and the scale factors are _____.

4. Frank enlarges a photo to poster size. The original photo is 5" by 7". If Frank enlarges it to 1 m by 1.5 m, will it be similar to the original?



The scale factor to enlarge from 5" to 1 m is:

____ = _____

fraction number/decimal (round to one decimal place)

The scale factor to enlarge from 7" to 1.5 m is:

____ = _____

fraction number/decimal (round to one decimal place)

_____, the poster _____ similar to the original because the scale factors are _____.

LIVEWORKSHEETS