3.5-3.6 (Extension): Similar Figures
Goals: *Determine if two figures are similar by setting up a proportion
        *Find the missing side of a figure based on similarity

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Congruent figures: two figures that are both the same _____ and the same

_____

$$\cong$$

Similar Figures: two figures that are the same _____ but do not have to be the

same _____. (They could be though)
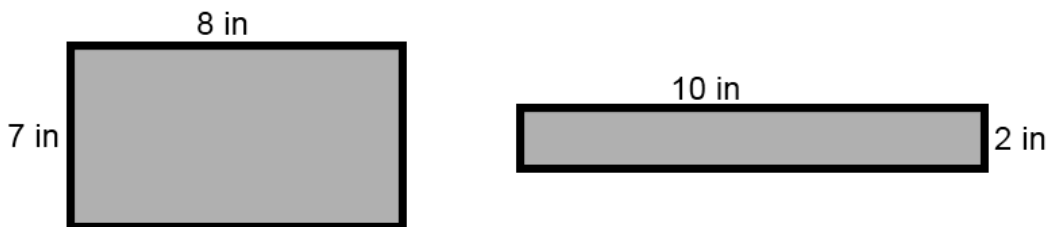
$$\sim$$

Corresponding parts: two _____ of two similar figures that have the same relative position.
They are in the "same spot"
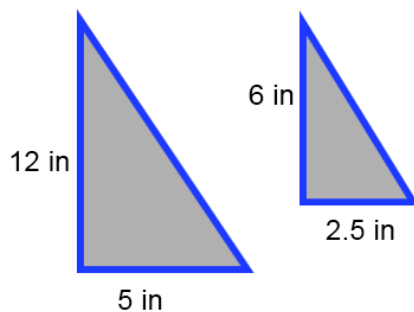
SIDES OF SIMILAR FIGURES ARE _____

        *this means they form a _____
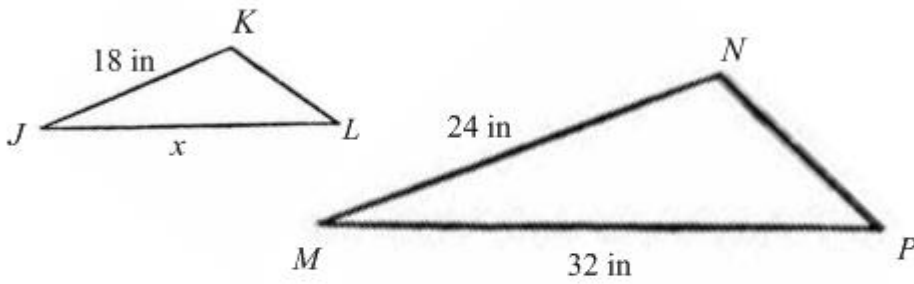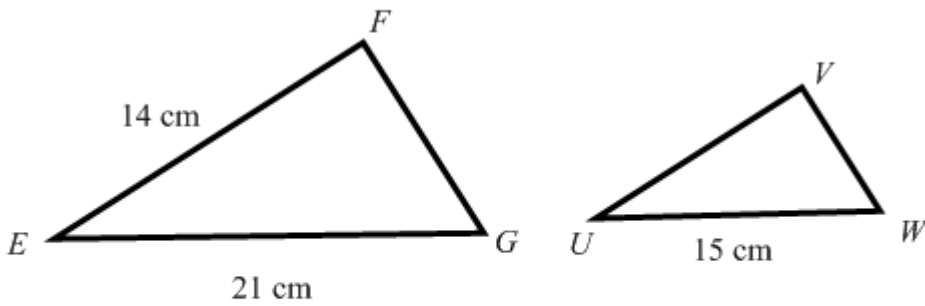
Decide if the given pairs of figures are similar or not.

Ex:

Ex:

Ex: △*JKL* ~ △*MNP*. Find *JL*.

K
18 in
N
24 in
J
x
L
M
32 in
P

Ex: △*EFG* ~ △*UVW*. Find *UV*.

F
14 cm
V
E
G   U
15 cm
W
21 cm

Ex: *ABCD* ~ *GHIJ*. Find *AD*.

C
D
I
J
14 m
H
35 m
G
B
40 m
A
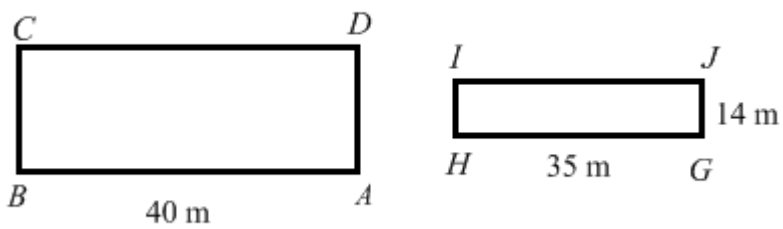
Ex: *JKLM ~ QRST*. Find *KL*.

K
L
30 ft
M
J

Q
T
36 ft
S
48 ft R
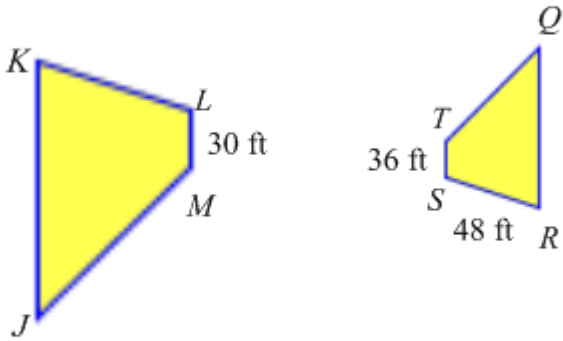
Ex: Cape Hatteras Lighthouse in North Carolina casts a shadow 83.2 feet long. A man who is 5.8 feet tall casts a shadow of 2.5 feet. Draw a diagram and use your knowledge of similar figures to determine the height of the lighthouse.