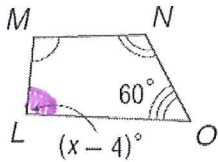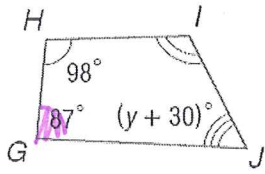Name: _Key_

Ratios, Proportions, and Similar Figures Warm-up

1. Given the two polygons are similar, find x and y.
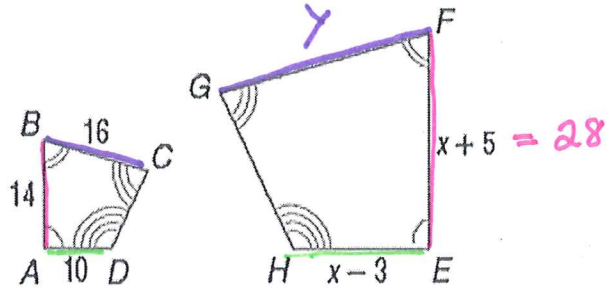

$\angle L \cong \angle G$
$x - 4 = 87$
$\boxed{x = 91°}$

$\angle J \cong \angle O$
$y + 30 = 60$
$\boxed{y = 30°}$

2. The two quadrilaterals are similar.
A. Write the similarity statement.
B. Find the scale factor.
C. Find x.
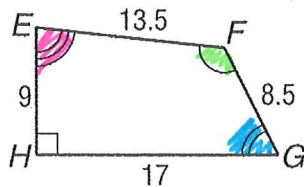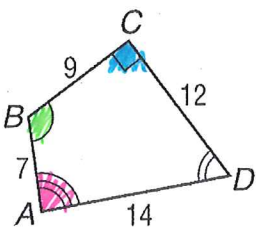**D. Find the measure of the indicated side.**

$x + 5 = 28$

$\dfrac{HE}{DA} = \dfrac{EF}{AB}$

$\dfrac{x-3}{10} = \dfrac{x+5}{14}$

$14(x-3) = 10(x+5)$
$14x - 42 = 10x + 50$
$4x = 92$
$4x = 92$
$x = 23$

$\dfrac{GF}{CB} = \dfrac{EF}{AB}$
$\dfrac{y}{16} = \dfrac{28}{14}$
$GF = 32$

A. Quad ABCD ~ _Quad EFGH_ B. SF = $\frac{1}{2}$ or 2 C. _x = 23_ D. GF = _32_

3. Determine whether quadrilateral ABCD ~ quadrilateral EFGH. Justify your answer.

No, corresponding angles are not $\cong$.

$\angle C \ncong \angle G$