$\qquad$
$\qquad$ Period: $\qquad$

1. Solve for the missing information, given that the two triangles in each question are SIMILAR.
a)

b)

c)

$\mathrm{x}=$ $\qquad$ $y=$ $\qquad$

$$
x=
$$

$\qquad$ $y=$ $\qquad$ $\mathrm{x}=$ $\qquad$ $y=$ $\qquad$
2. If the three sides of a triangle are in ratio of 1:4:2 and the perimeter of the triangle is 10.5 cm . What is the length of the longest side?
3. Use the scale factor to determine the missing values.
a) $\triangle Q N P: \triangle H R T$ is $2: 1$


$$
x=
$$

$\qquad$ $y=$ $\qquad$
4. Use the Pythagorean Theorem and similarity. Solve for the missing values.
a)

5. Are the following pairs of triangle similar? If YES, name the similarity criteria (SSS $\sim$, SAS $\sim$, AA $\sim$ ) and create a similarity statement. If NO, just circle No.
a) Yes / No

Criteria $\qquad$
$\Delta$ $\qquad$ $\sim \Delta$ $\qquad$
c) Yes / No

Criteria $\qquad$
$\Delta$ $\qquad$ $\sim \Delta$ $\qquad$
b) Yes / No

Criteria $\qquad$
$\Delta$ $\qquad$ $\sim \Delta$ $\qquad$
d) Yes / No
Criteria $\qquad$
$\Delta$ $\qquad$ $\sim \Delta$ $\qquad$

6. Jeff asks the teacher is ASA is also a similarity criterion. The teacher says yes but it isn't needed. Why isn't it needed?

