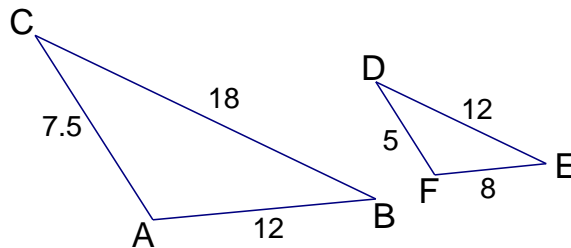***The 3 ways to prove similar triangles are: _____, _____, and _____.**
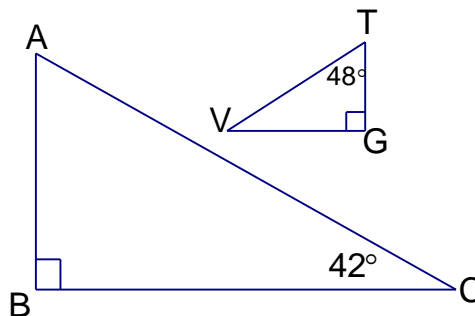
Examples

Decide if each pair of triangles is similar. If they are, write the correspondence in the first blank and the reason in the second blank. If they are NOT similar, write NS in the second blank.
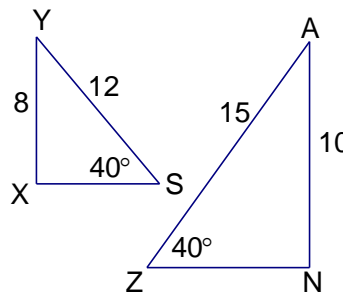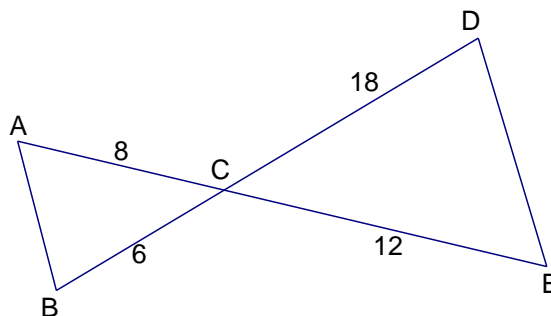
1) Δ ABC ~ Δ _____ by _____

2) Δ ABC ~ Δ _____ by _____

3) Δ YXS ~ Δ _____ by _____

4) Δ ABC ~ Δ _____ by _____

Geometry   Name _____
Chapter 11.2 Justifying Similar Triangles Worksheet 6

Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using
SSS, SAS, and AA. Make sure you have work to support your answer.

1.

I

4
4.8
K
1.6
J

T
2.5
3
Z
X 1

Yes   No   Δ _____ ~ Δ _____ by _____
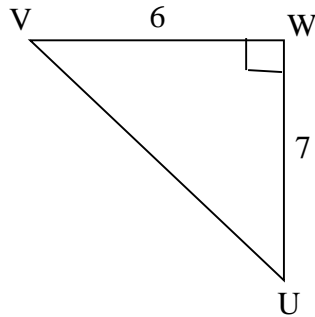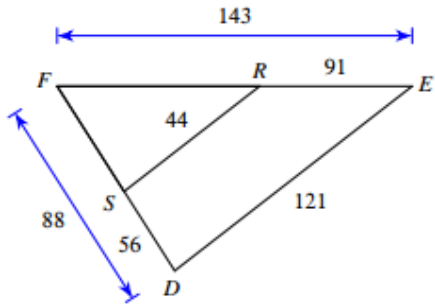
2.

F
60°   45°
G   H

D
75°
60°
C   E

Yes   No   Δ _____ ~ Δ _____ by _____

3.

P
9
O   8   Q

V   6   W
7
U

Yes   No   Δ _____ ~ Δ _____ by _____

8.

143

F   R   91   E

44

S   121

88   56

D
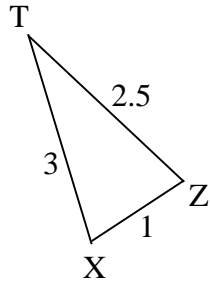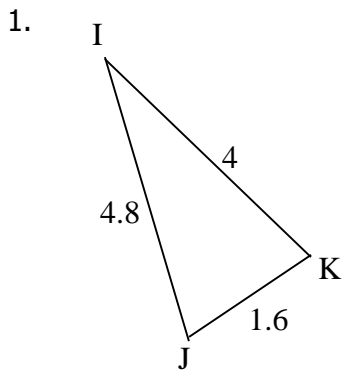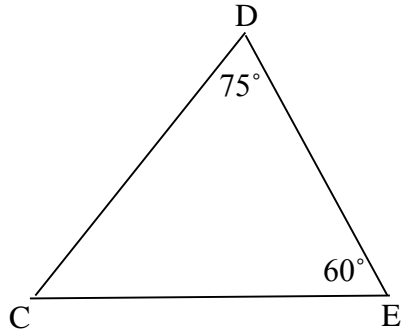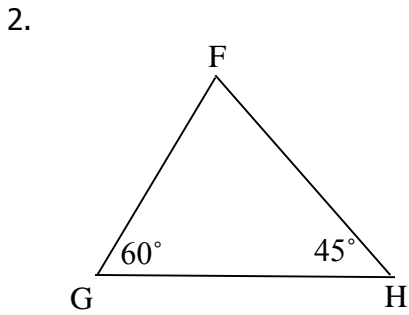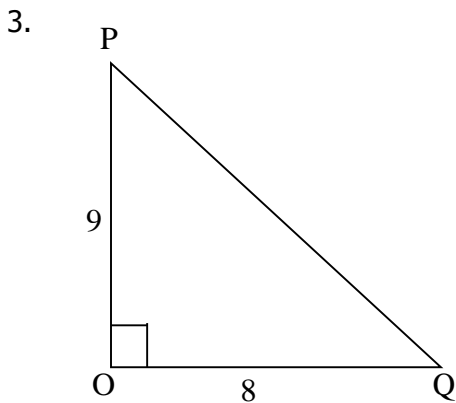
yes   No   Δ _____ ~ Δ _____ by _____

---

9. Ryan is 5 feet tall. His shadow is 9 feet long and the shadow of a building is 36 feet long. How tall is the building?   Draw two similar triangles and then determine the height of the building.

---

10. ABCDE is similar to QRSTU

The similarity ratio of ABCDE to QRSTU is _____.

The scale factor of ABCDE to QRSTU is _____.

Find the length of each side.

QU _____

QR _____

RS _____

ST _____

Perimeter of ABCDE _____

Perimeter of QRSTU _____

ratio of perimeter of ABCDE to perimeter of QRSTU _____

A
2   2
E   B
3   3
D   4   C

Q
U   R
15
T   S