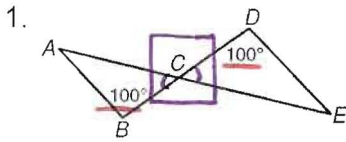


Practice B

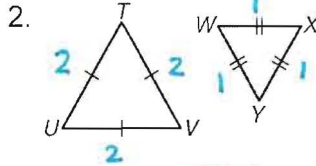
Triangle Similarity: AA, SSS, SAS

For Exercises 1 and 2, explain why the triangles are similar and write a similarity statement.

**Just made up some #'s!*



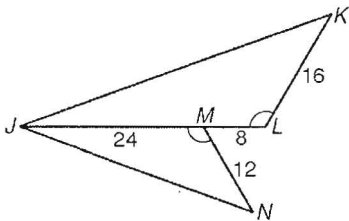
$\angle B \cong \angle D$
 $\angle C \cong \angle C$ (vertical \angle s)
 $\triangle BCA \sim \triangle DCE$ by AA



$TU/WX = 2/1$
 $TV/WY = 2/1$
 $UV/YX = 2/1$
 $\triangle TVU \sim \triangle WXY$ by SSS

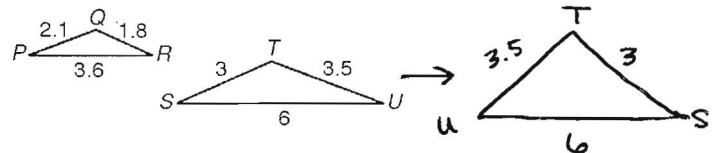
For Exercises 3 and 4, verify that the triangles are similar. Explain why.

3. $\triangle JLK$ and $\triangle JMN$



$\angle L \cong \angle L$ $JL/JM = 32/24 = 4/3$
 $KL/NM = 16/12 = 4/3$
 $\triangle JLK \sim \triangle JMN$ by SAS

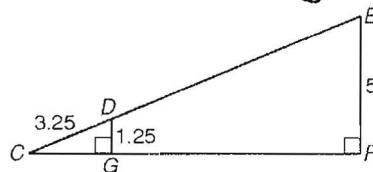
4. $\triangle PQR$ and $\triangle TUS$ *← pay attention!*



$QR/TS = 1.8/3 = 3/5$
 $QP/TU = 2.1/3.5 = 3/5$ $PQ/US = 3.6/6 = 3/5$
 $\triangle PQR \sim \triangle TUS$ by SSS

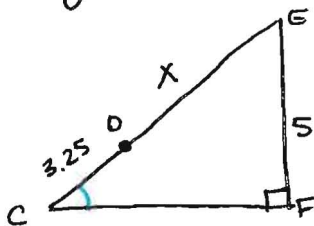
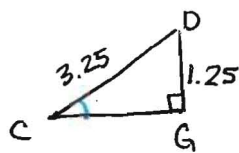
For Exercise 5, explain why the triangles are similar and find the stated length.

5. DE



$\angle C \cong \angle C$
 $\angle G \cong \angle F$
 $\triangle DCG \sim \triangle ECF$ by AA

$$\frac{DC}{EC} = \frac{DG}{EF} \rightarrow \frac{3.25}{x+3.25} = \frac{1.25}{5}$$



$$16.25 = 1.25(x + 3.25)$$

$$16.25 = 1.25x + 4.0625$$

$$\begin{array}{r} -4.0625 \\ \hline 12.1875 = 1.25x \\ \boxed{9.75 = x} \end{array}$$