Triangle Proofs - Guided Lesson Explanation

Explanation#1

Step 1) First we have to see what is being asked.

"Prove FEH bisects ∠DEG"

Step 2) m∠FEH ≅ m∠FEG + m∠GEH

Line EF ≅ line EF

∠G ≅ ∠D

FEH bisects ∠GEH

ΔFGE ≅ ΔFDE

m∠FEG = m∠FED

m∠FEG + m∠GEH = m∠FED + m∠DEH

FEH bisects ∠DEG

m∠GEh= m∠DEH

m∠FEG + m∠GEH = m∠FEG + m∠DEH

m∠EFG ≅ m∠EFD

m∠FEH + m∠FED + m∠DEH
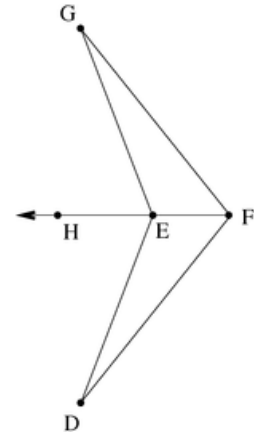
Explanation#2

Step 1) First we have to see what is being asked.

"Prove NM = 6."

Step 2) NM = 6

Line JL ≅ line NL

∠JLK ≅ ∠NLM

JK = 6

Line KM bisects line JN

JK = NM

ΔJLK ≅ ΔNLM

ΔJ ≅ ΔN

So NM = 6
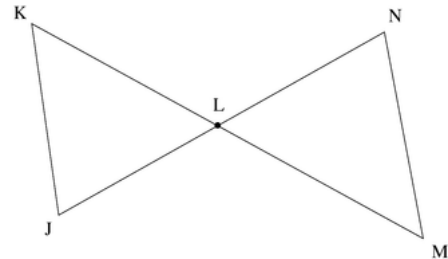
Explanation#3

ΔPRT ≅ ΔQRS

∠R ≅ ∠R

PR = PQ + QR   PR = 6 + 6; PR = 12, SR =4

∠P ≅ ∠SQR

PQ = 6

TR = SR + TS   4 = SR

PR/QR = TR/SR

12/6 = TR/4; 2/1 =TR/4   TR = 8

8 = 4 + TS   TS = 8 – 4   TS = 4