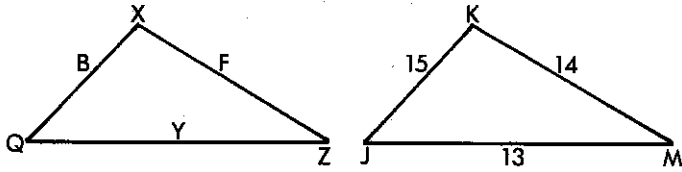


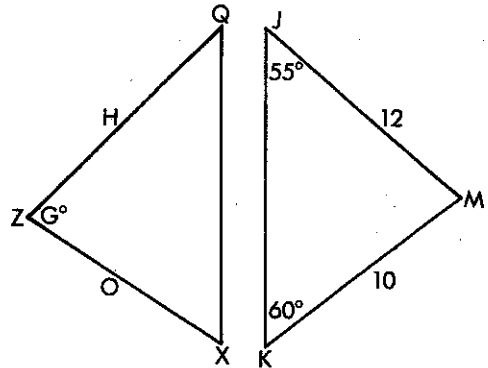
CONGRUENT TRIANGLES

Suppose you want to prove that $\triangle QXZ \cong \triangle JKM$. What value must the variable(s) have in each exercise? After you've found the value for each variable, decipher the code below for an important application of geometry.

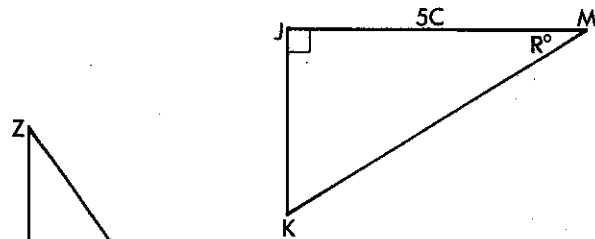
Note: Q, Z, X, J, K, and M are NOT variables.



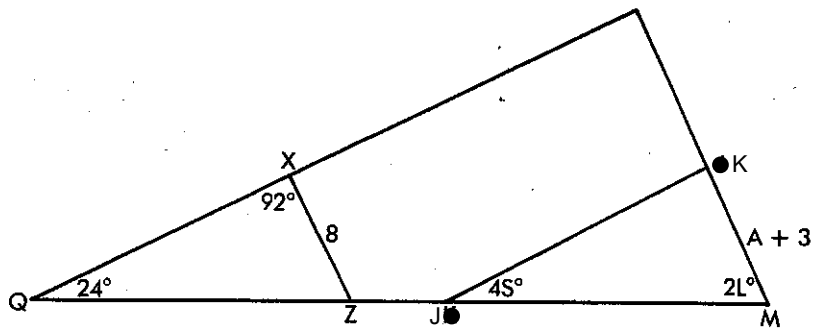
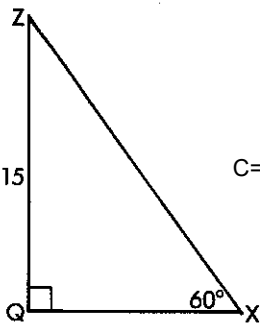
$B = \underline{\hspace{2cm}}, F = \underline{\hspace{2cm}}, Y = \underline{\hspace{2cm}}$



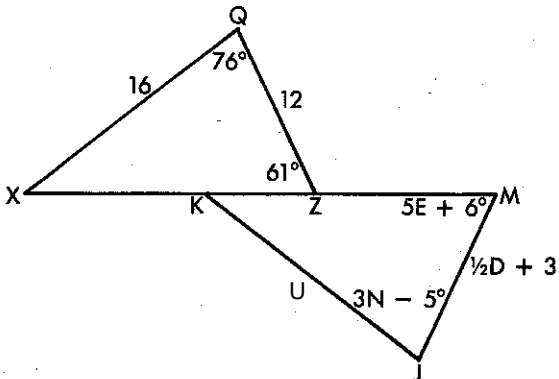
$G = \underline{\hspace{2cm}}, H = \underline{\hspace{2cm}}, O = \underline{\hspace{2cm}}$



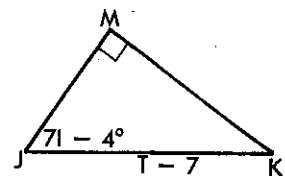
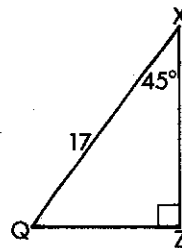
$C = \underline{\hspace{2cm}}, R = \underline{\hspace{2cm}}$



$A = \underline{\hspace{2cm}}, L = \underline{\hspace{2cm}}, S = \underline{\hspace{2cm}}$



$D = \underline{\hspace{2cm}}, E = \underline{\hspace{2cm}}, N = \underline{\hspace{2cm}}, U = \underline{\hspace{2cm}}$



$I = \underline{\hspace{2cm}}, T = \underline{\hspace{2cm}}$

6 7 27 3 11 24 30 7 5 27 65 32 11 6 5 30 11
 30 7 65 7 18 24 12 11 13 5 30 11 16 6 11 14 16 32
 24 10 15 16 7 32 18 11 30 6 5 27 18 5 30 3 12 7 24 11 3 24 6