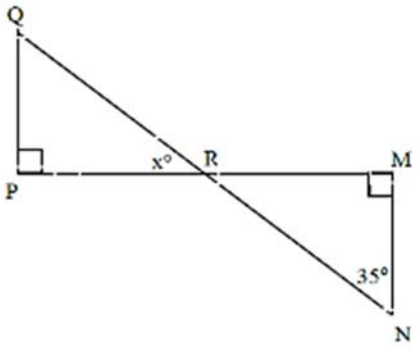
Name:_____ Date:_____

Period:_____

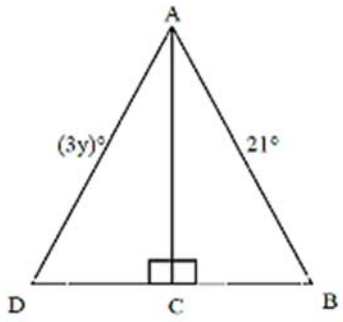
Aim: Using congruence to find sides and angles

Do Now: Find the value of x and y in the diagrams below

$\triangle PQR \cong \triangle MNR$. Find x.

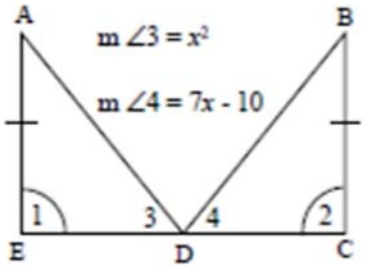


$\triangle ABC \cong \triangle ADC$. Find y.

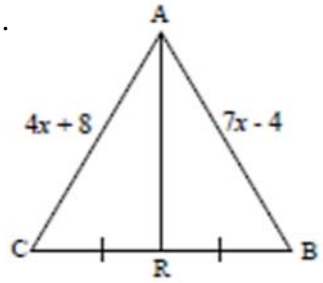


What value(s) of x would make the triangles congruent?

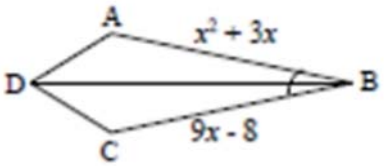
1.



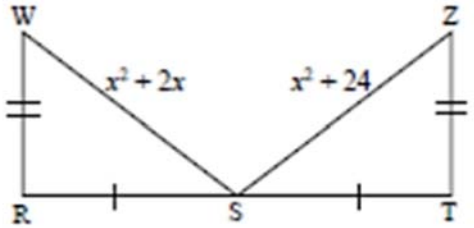
2.



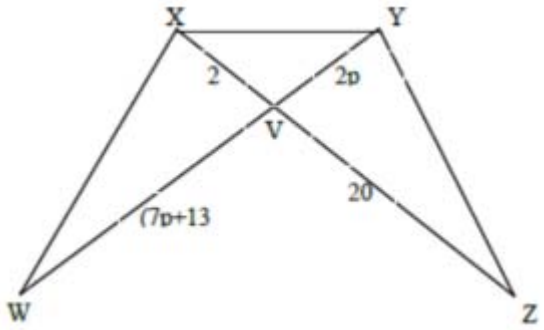
3.



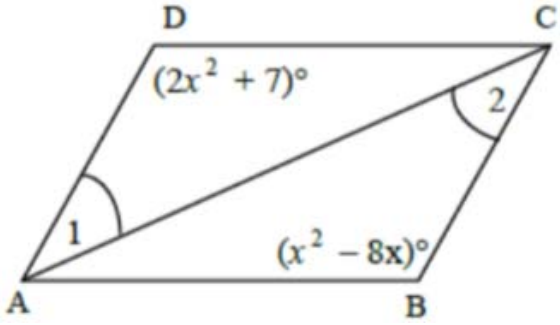
4.



5. If $\Delta WXY \cong \Delta ZYX$, find p



6. If $\Delta ABC \cong \Delta CDA$, find x



7. If $\Delta ABC \cong \Delta DEF$ and $AB = x^2 + 3x$ and $DE = 28$, find the value(s) of x

8. If $\Delta ABC \cong \Delta DEF$ and $AC = x^2$ and $DF = 2x + 8$, find the value(s) of x

9. If $\Delta ABC \cong \Delta DEF$ and $m\angle A = x^2 + 3x$ and $m\angle D = 54$, find the value(s) of x