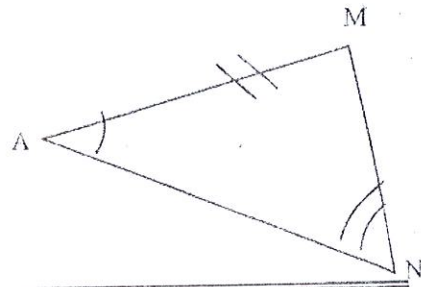
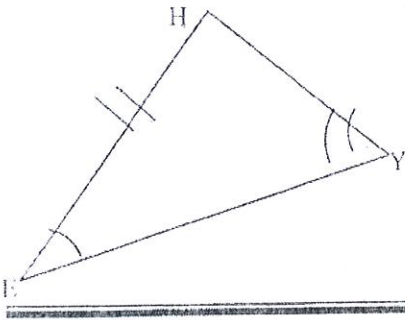


Triangles and Congruence  
Test Review

1:  $\triangle HEY$  is congruent to  $\triangle MAN$  by AAS.

What **other** parts of the triangles are congruent by CPCTC?

$$\begin{aligned} \overline{EY} &\cong \overline{AN} \\ \angle H &\cong \angle M \\ \overline{HY} &\cong \overline{MN} \end{aligned}$$

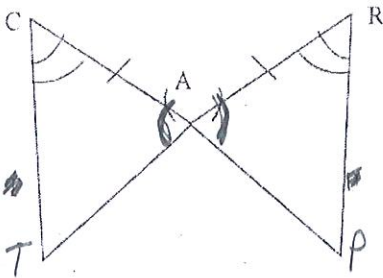


2:

$\triangle CAT \cong \triangle RAP$ , by ASA

THEREFORE:

$$\begin{aligned} \angle T &\cong \angle P, \text{ by CPCTC} \\ \overline{CT} &\cong \overline{RP}, \text{ by CPCTC} \\ \overline{TA} &\cong \overline{PA}, \text{ by CPCTC} \end{aligned}$$



➤ Solve each of the following sets of Congruent Triangles for the variables indicated.

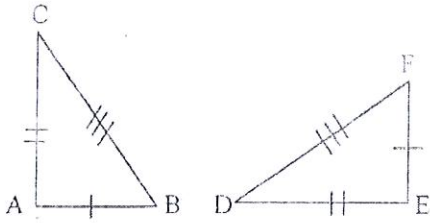
<p>3. <math>\triangle ABC \cong \triangle DEF</math>      <math>x = \underline{17.3}</math></p> <p><math>\angle A = (4x)^\circ</math>    <math>\angle E = (2x + 1)^\circ</math>  <math>\angle C = 75^\circ</math>      <math>4x + 75 + 2x + 1 = 180</math>  <math>6x + 76 = 180</math>  <math>6x = 104</math>  <math>x = 17.3</math></p>	<p>4. <math>\triangle ABC \cong \triangle DEF</math>      <math>x = \underline{10}</math>  <math>y = \underline{12}</math></p> <p><math>\angle A = 60^\circ</math>    <math>\overline{AB} = 6x - 4</math>      <math>6x - 4 = 3x + 26</math>  <math>\angle D = (5y)^\circ</math>    <math>\overline{DE} = 3x + 26</math>      <math>3x = 30</math>  <math>x = 10</math></p> <p><math>60 = 5y</math>  <math>y = 12</math></p>
<p>5. <math>\triangle ABC \cong \triangle DEF</math>      <math>x = \underline{6}</math>  <math>y = \underline{4}</math></p> <p><math>\overline{AC} = 4x - 5</math>    <math>\overline{EF} = 5y</math>  <math>\overline{BC} = y + 1</math>    <math>\overline{DF} = 2x + 7</math></p> <p><math>4x - 5 = 2x + 7</math>  <math>2x = 12</math>  <math>x = 6</math></p> <p><math>y + 1 = 5y</math>  <math>1 = 4y</math>  <math>\frac{1}{4} = y</math></p>	

Triangles and Congruence

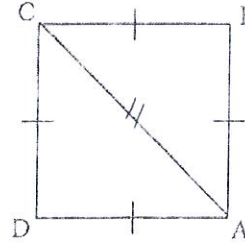
Test Review

- For each pair of triangles, name the reason for congruence. (SSS, SAS, ASA, AAS, NONE)
- Then name the correct congruent triangle. If the reason was NONE, leave the triangle answer blank.

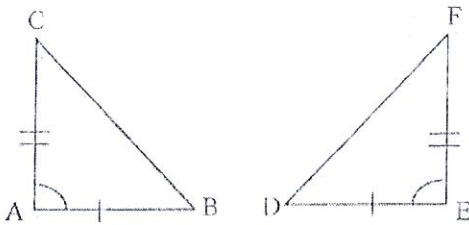
1.  $\triangle ABC \cong \triangle EFD$  By: SSS



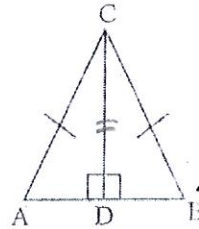
2.  $\triangle ABC \cong \triangle ADC$  By: SSS  
or  $\triangle CDA$



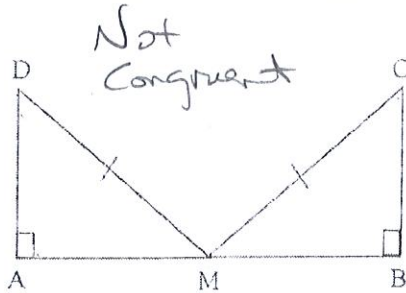
3.  $\triangle ABC \cong \triangle EDF$  By: ASA



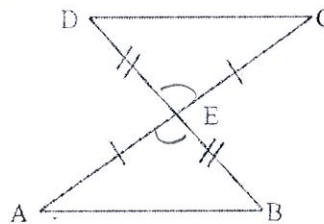
4.  $\triangle ADC \cong \triangle BDC$  By: HL



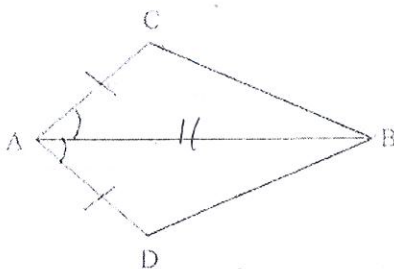
5.  $\triangle MAD \cong \triangle$  By: \_\_\_\_\_



6.  $\triangle ABE \cong \triangle CDE$  By: SAS



7.  $\triangle ACB \cong \triangle ADB$  By: SAS



8.  $\triangle MNP \cong \triangle MQP$  By: SSS

