HW #13

TEST #2 REVIEW
Accelerated Math 1-2-3

Name:_____

Period:_____

Date:_____

[1] 80°

[2] 90°

[3] 34°

[4] 69°

[5] [C]

[6] $x = 79°;\ y = 79°$

[7] Yes. The Third Angle Conjecture states that if two angles of one triangle are equal in measure to two angles of another triangle, then the third angle in each triangle is equal in measure.

[8] 40.5°

[9] $x = 18$

[10] $m\angle Q = 50°;\ m\angle S = 50°;\ m\angle R = 80°;$

[11] 75°

[12] No

[13] $4 \text{ in.} < x < 26 \text{ in.}$

[14] $\overline{CB}$

[15] $\angle C$

[16] l, k, j

[17] $32°$

[18] $37°$

[19] SSS

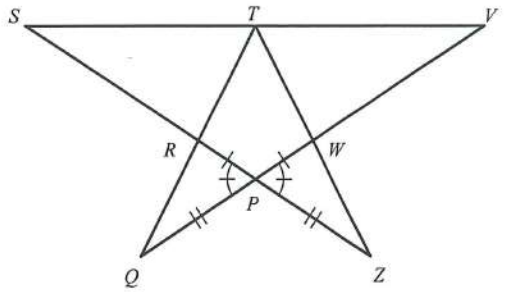
[20] $\Delta HJK \cong \Delta KIH$ by the SSS Conjecture

[21] $\angle A \cong \angle D$ because they are base angles of isosceles ΔCAD. So $\Delta ABC \cong \Delta DEC$ by SAS.

[22] We are given that $\overline{BD}$ bisects $\overline{AC}$ and $\overline{AB} \cong \overline{BC}$. The definition of a bisector tells us that $\overline{AD} \cong \overline{CD}$, and the reflexive property that $\overline{BD} \cong \overline{BD}$. The SSS shortcut gives $\Delta ADB \cong \Delta CDB$, so by CPCTC $\angle CBD \cong \angle ABD$.

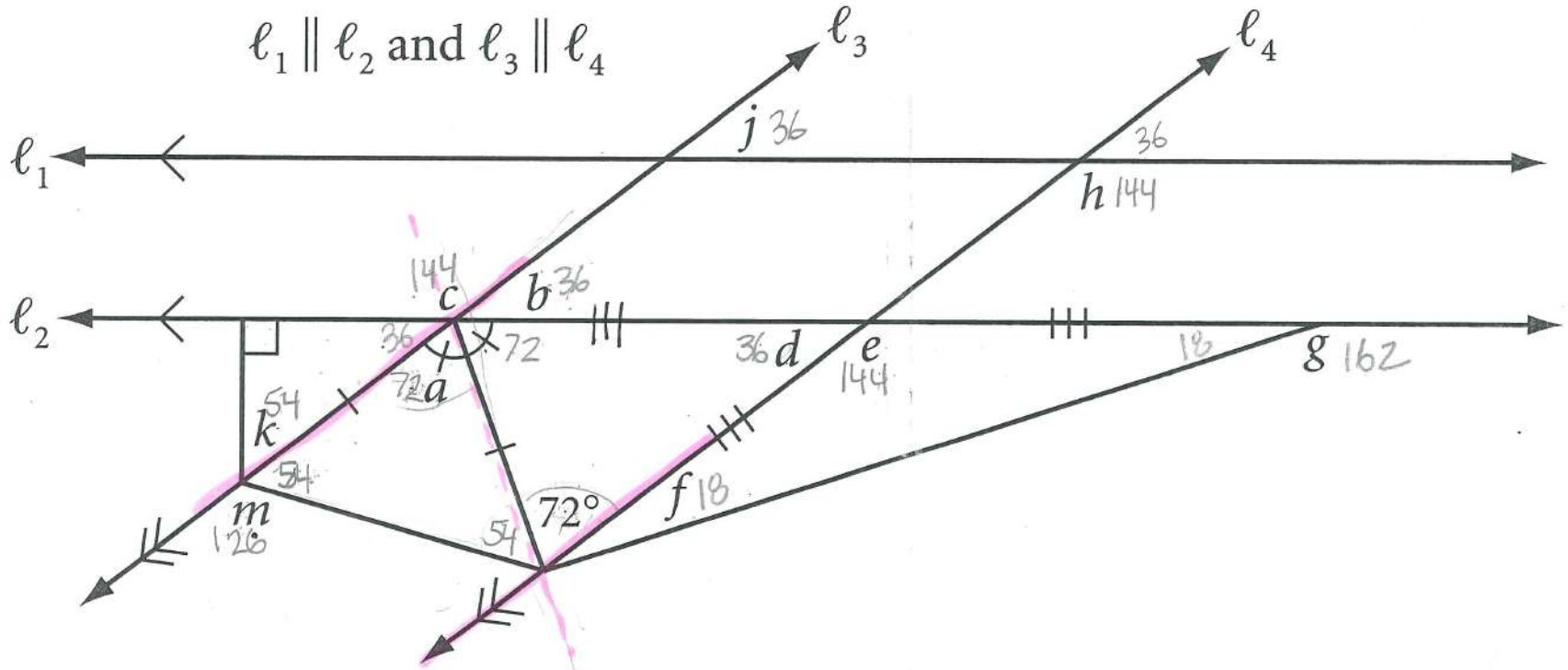
[23] We are given that $\angle DCA \cong \angle BCA$ and $\angle B \cong \angle D$. The reflexive property tells us that $\overline{AC} \cong \overline{AC}$ and the SAA shortcut tells us that $\Delta ABC \cong \Delta ADC$. By CPCTC, $\overline{AB} \cong \overline{AD}$.

[24] [A]



[25] $\Delta RQP \cong \Delta WZP$

$a = 72$ $d = 36$ $g = 162$ $k = 54$
$b = 36$ $e = 144$ $h = 144$ $m = 126$
$c = 144$ $f = 18$ $j = 36$



(b) $180 - 144 = 36$ (c) $72 + 72 = 144$ (h) $180 - 36 = 144$ (f) $180 - 144 = 36$, $\frac{36}{2} = 18$ (g) $180 - 18 = 162$ (k) $90 + 36 = 126$, $180 - 126 = 54$ (m) $180 - 72 = 108$, $\frac{108}{2} = 54$, $180 - 54 = 126$