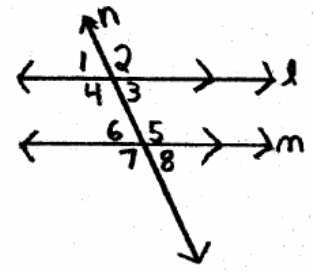
Determining Angle Measures with Parallel Lines Name _____

Answer the following Questions.

1. Explain why $\angle 4$ and $\angle 6$ must be supplementary.

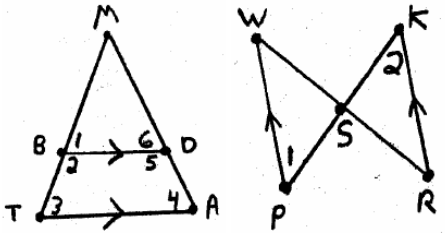


2. If you know that m $\angle 1 = 70$, explain two different strategies you could use to find m$\angle 5$.

3. Explain what the arrowheads on the lines in both diagrams indicate.

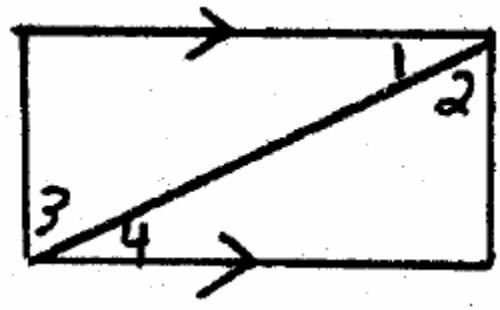
4. If $BD \| AT$, then $\angle 1 \cong \angle 3$ and $\angle 6 \cong \angle 4$. Explain why this is true.

5. If $WP \| KR$, then $\angle 1 \cong \angle 2$. Explain why this is true.



List the conclusions that can be drawn from each figure.

6.



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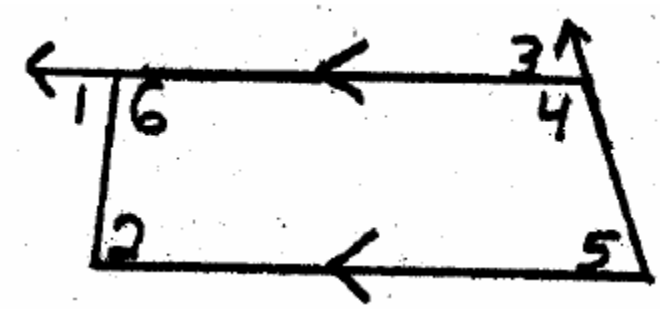
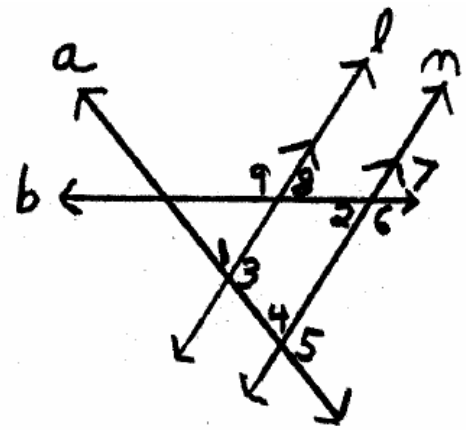


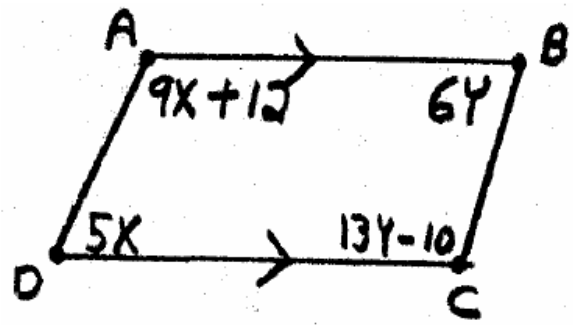
Given $l \| m$, m$\angle 1 = 98$, and m$\angle 2 = 40$, find the measure of each angle. Justify each decision using the properties of parallel lines.

8.



Find the values of x and y. Justify each decision using the properties of parallel lines.

9.



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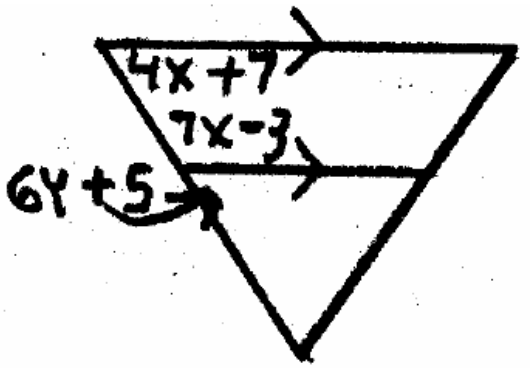

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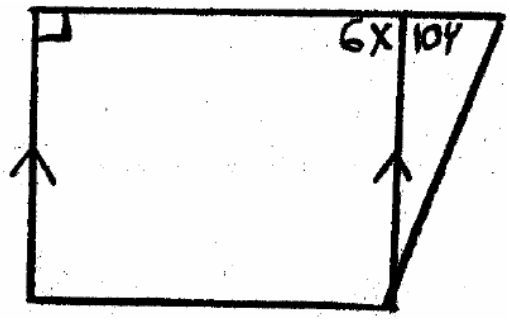
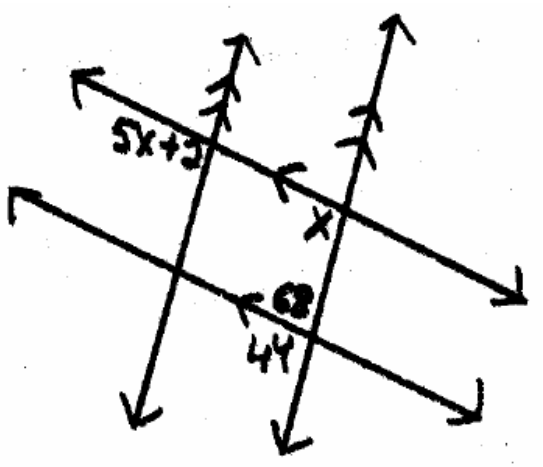


Find the values of x, y and *z*. Justify each decision using the properties of parallel lines.

12.



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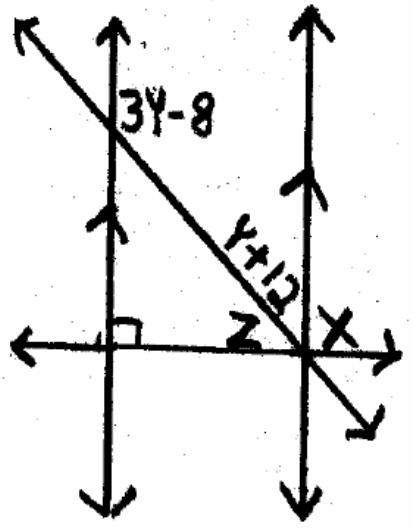

14.