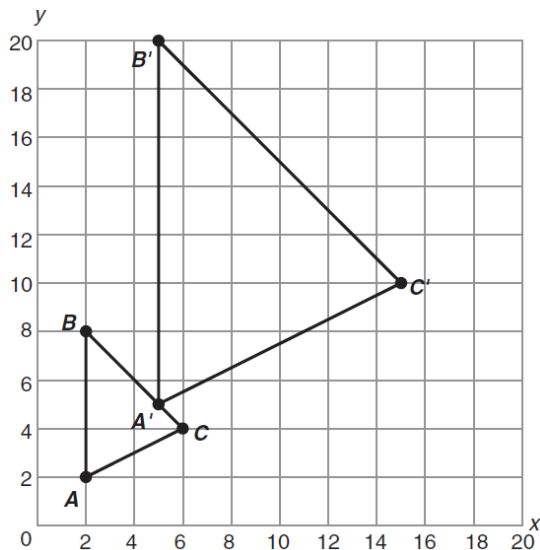


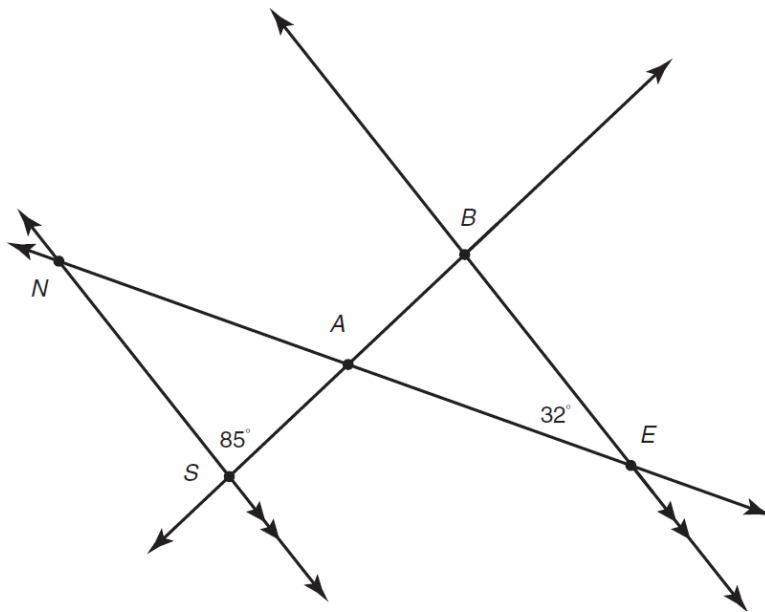
6.REV.1 – Lessons 6.1 – 6.3

1. $\triangle A'B'C'$ is a dilation of $\triangle ABC$ with the center of dilation at the origin. List the coordinates of the vertices of $\triangle ABC$ and $\triangle A'B'C'$. What is the scale factor of the dilation? Explain.



2. In the figure, $\overleftrightarrow{NS} \parallel \overleftrightarrow{BE}$. Use the information given in the figure to determine the $m\angle SNA$, $m\angle NAS$, $m\angle ABE$, and $m\angle BAE$. Explain your reasoning.

$m\angle SNA =$ _____
 $m\angle NAS =$ _____
 $m\angle ABE =$ _____
 $m\angle BAE =$ _____



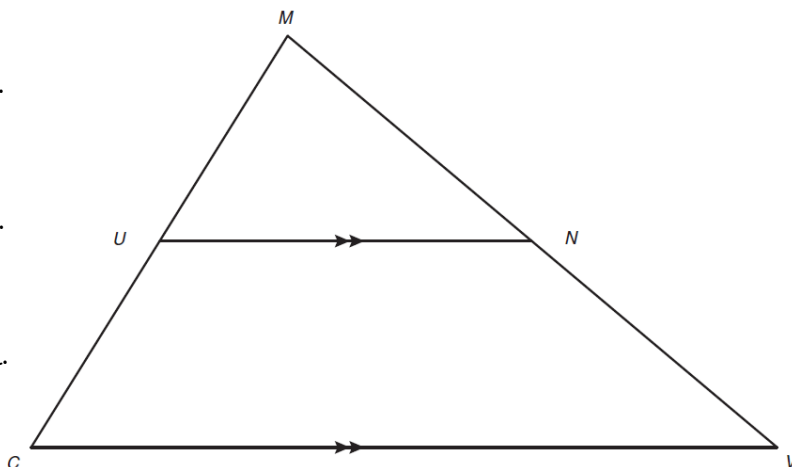
3. Is $\triangle NSA \sim \triangle EBA$? Explain your reasoning.

4. In the figure shown, $\overleftrightarrow{NU} \parallel \overleftrightarrow{CV}$.

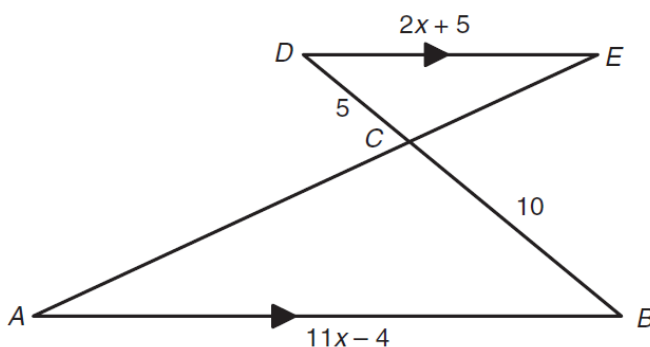
Is $\angle MUN \cong \angle MCV$? Explain your reasoning.

Is $\angle MNU \cong \angle MVC$? Explain your reasoning.

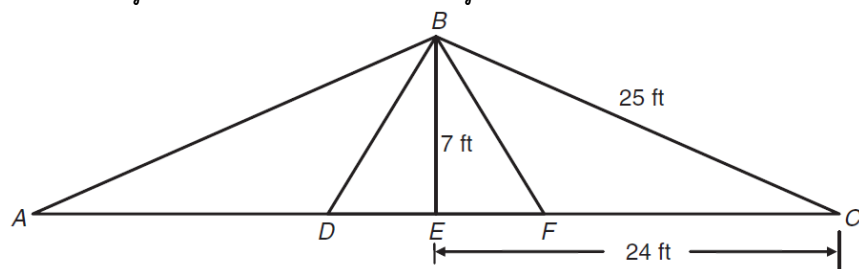
Is $\triangle CMV \sim \triangle UMN$? Explain your reasoning.



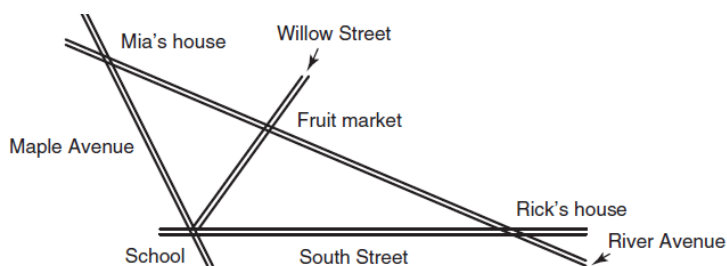
5. In the figure shown, $\overline{AB} \parallel \overline{DE}$, $BC = 10$, & $CD = 5$. Use this information to calculate the value of x . Explain how you determined your answer.



6. The figure shows a truss on a bridge. \overline{BF} bisects $\angle CBE$. Use this information to calculate EF & CF .



7. On the map shown, Willow Street bisects the angle formed by Maple Avenue and South Street. Mia's house is 5 miles from the school and 4 miles from the fruit market. Rick's house is 6 miles from the fruit market. How far is Rick's house from the school?



8. Luigi is racing a remote control car from the starting point to the winner's circle. That path bisects the angle formed by the lines from the starting point to the house and from the starting point to the retention pond. The house and the retention pond are each 500 feet from the starting point. The house is 720 feet from the retention pond. How far is the winner's circle from the retention pond?

