Name: $\qquad$ Date: $\qquad$ Per: $\qquad$

1. Plot and label the points $A(-3,1), B(2,1), C(-1,3)$.

2. Use the distance formula to find the distance of $\overline{A B}, \overline{A C}$ and $\overline{B C}$

$$
\begin{aligned}
\overline{A B} & =\sqrt{\left((\boxed{-3}-\boxed{2})^{2}+(\square-\square)^{2}\right.} \\
& =\sqrt{(\quad)^{2}+(\quad)^{2}} \\
& =\sqrt{ }
\end{aligned}
$$

$$
\overline{A C}=\sqrt{(\square-\square)^{2}+(\square-\square)^{2}}
$$

Turn Square roots into decimal answers (round to the nearest tenth)

$$
\overline{B C}=\sqrt{(\square-\square)^{2}+(\square-\square)^{2}}
$$

4. Multiply each coordinate of the points $A(-3,1), B(2,1), C(-1,3)$ by 2

Graph and label the points $D(\quad), E(\quad, \quad)$ and $F(\quad, \quad)$
5. Use the distance formula to find the distance of $\overline{D E}, \overline{D F}$ and $\overline{E F}$

$$
\begin{aligned}
\overline{D E} & \left.=\sqrt{(\square-\square)^{2}+(\square}-\square\right)^{2} \\
& =\sqrt{(\square)^{2}+(\square} \\
& =\sqrt{ }
\end{aligned}
$$

$$
\overline{D F}=\sqrt{(\square-\square)^{2}+(\square-\square)^{2}}
$$

$$
\overline{E F}=\sqrt{(\square-\square)^{2}+(\square-\square)^{2}}
$$


7. What do you notice about corresponding sides?
8. $\triangle D E F$ is $\square$ to $\triangle A B C$ by a $\square$ of $\square$
9. Triangle Similarity Statement $\square$
$\square$

