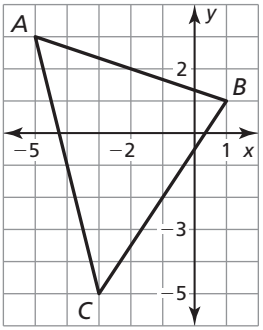
Name_____ Date _____

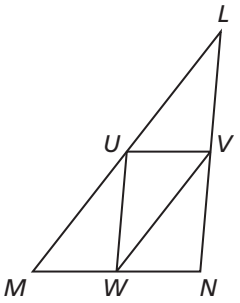
6.5 Practice B

In Exercises 1–4, use the graph of $\triangle ABC$.

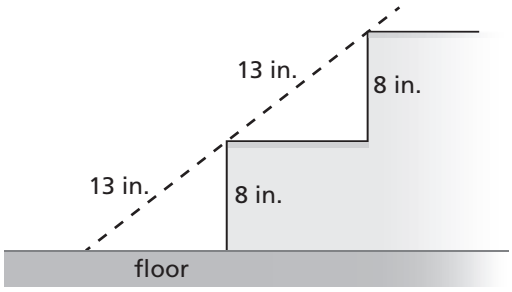


1. Find the coordinates of the midpoint D of $\overline{AB}$, the midpoint E of $\overline{CB}$, and the midpoint F of $\overline{AC}$.
2. Graph the midsegment triangle, $\triangle DEF$.
3. Show that $\overline{FD} \parallel \overline{CB}$, $\overline{FE} \parallel \overline{AB}$, and $\overline{DE} \parallel \overline{AC}$.
4. Show that $FD = \frac{1}{2}CB$, $FE = \frac{1}{2}AB$, and $DE = \frac{1}{2}AC$.

In Exercises 5–8, use $\triangle LMN$. where *U*, *V*, and *W* are the midpoints of the sides.



5. When $LV = 9$, what is UW?
6. When $LU = 2(x - 5)$ and $VW = 8 - x$, what is LM?
7. When $NL = 2x(12 + x)$ and $UW = (x + 4)^2$, what is LV?
8. When $UV = 2y + 14$ and $MN = 13 - y$, what is WN?
9. The bottom two steps of a stairwell are shown. Explain how to use the given measures to verify that the bottom step is parallel to the floor.



10. Your friend claims that a triangle with side lengths of a, b, and c will have half the area of a triangle with side lengths of $2a$, $2b$, and $2c$. Is your friend correct? Explain your reasoning.