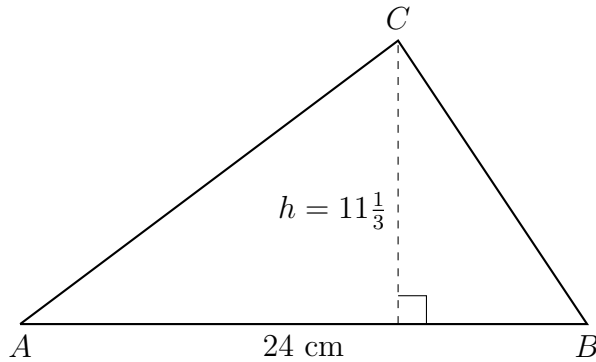


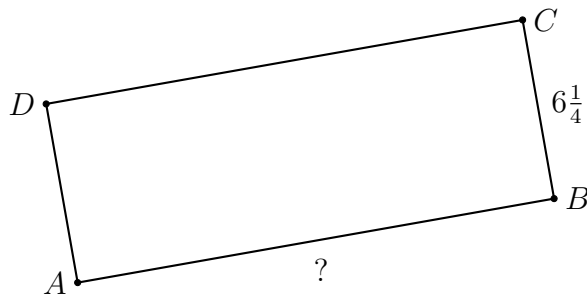
Name:

**2.8 Homework: Solving for lengths**

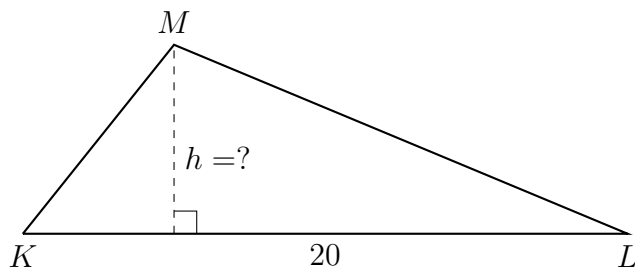
1. Find the area of  $\triangle ABC$ . The altitude  $h$  of the triangle is  $11\frac{1}{3}$  centimeters and the base  $AB = 24$  cm.



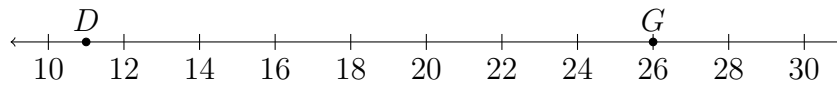
2. Given the rectangle  $ABCD$  shown below, with  $BC = 6\frac{1}{4}$ . If the area of the rectangle is 100, find  $AB$ .



3. Given that the area of  $\triangle KLM$  is  $81\frac{1}{4}$  and the base  $KL = 20$ . Find the altitude  $h$  of the triangle.



4. Given  $\overleftrightarrow{DG}$  as shown on the number line, with  $D = 11$  and  $G = 26$ .



Points  $E$  and  $F$  trisect  $\overline{DG}$ . Find the values of  $E$  and  $F$  and mark and label them on the number line  $\overleftrightarrow{DG}$ .

5. Given  $\overline{PQR}$ , with  $PQ = \frac{1}{2}x + 4$ ,  $QR = x + 3$ , and  $PR = 2x + 5$ . Find  $PR$ .  
Complete all the steps for full credit.