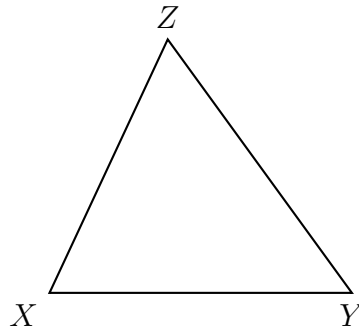


Name:

### 1.5 Homework: Polygons, perimeter

1. Line segments that have the same length are \_\_\_\_\_.
2. Given isosceles  $\triangle XYZ$  with  $\overline{XY} \cong \overline{YZ}$ . On the diagram mark the congruent line segments with tick marks.

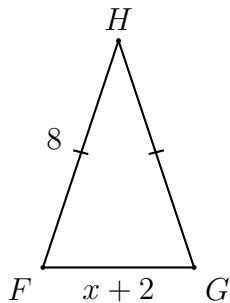


3. Given the rectangle  $ABCD$  shown below.
  - (a) Measure and mark the length and width of the rectangle in centimeters.
  - (b) Calculate its perimeter  $P$ . (show your work as an equation)

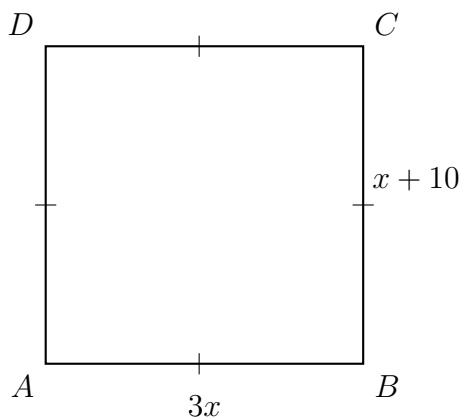


4. The perimeter of the isosceles  $\triangle FGH$  is 21 with  $\overline{FH} \cong \overline{GH}$ ,  $FG = x + 2$ ,  $FH = 8$ . Fill in the blanks then solve for  $x$ .

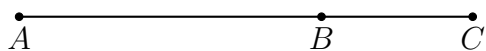
$$P = 8 + \underline{\hspace{1cm}} + (x + 2) = \underline{\hspace{1cm}}$$



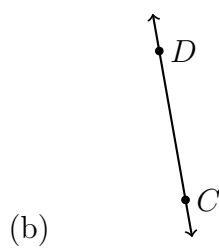
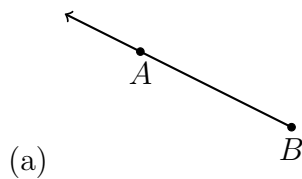
5. A square has four sides of equal length. Given  $ABCD$  with  $AB = 3x$  and  $BC = x + 10$ . Find the square's perimeter. (hint: first find  $x$ )



6. Given  $\overline{ABC}$ ,  $AB = 3.8$ , and  $BC = 1.7$ . Find  $AC$ .



7. Use symbols to write the name of each geometric figure.



8. Given  $Q$  bisects  $\overline{PR}$ , with  $PQ = 3x - 12$ ,  $QR = 2x$ . Find  $PR$ .

