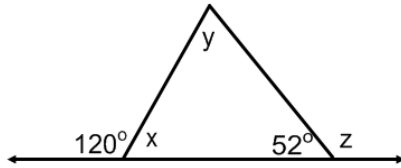
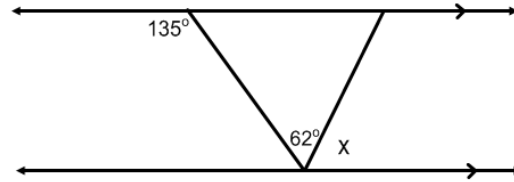


Solve for each of the unknown angles; justify your answer with an equation and calculation, OR, by stating what pattern or relationship you used (supplementary, opposite angle, etc.):

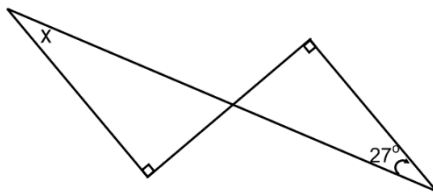
1. a)



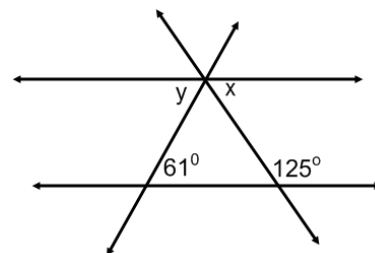
b)



c)

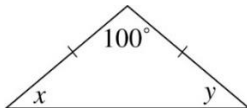


d)



2. Find the missing angle (x, y or z) for the following problems. (8 marks)

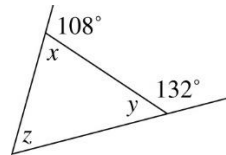
(a)



$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

(b)

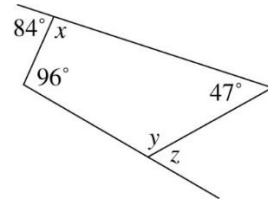


$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

$$z = \underline{\hspace{2cm}}$$

(c)



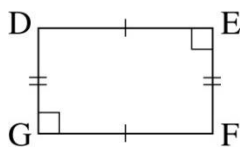
$$x = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}}$$

$$z = \underline{\hspace{2cm}}$$

3. Find the requested angle for the following diagrams (6 marks)

(a)

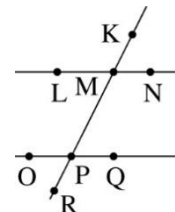


Given $\angle DGF = 90^\circ$

Find

$$\angle GDE = \underline{\hspace{2cm}}$$

(b)



Given $\angle LMK = 112^\circ$

Find

$$\angle KMN = \underline{\hspace{2cm}}$$

$$\angle RPQ = \underline{\hspace{2cm}}$$

$$\angle OPR = \underline{\hspace{2cm}}$$