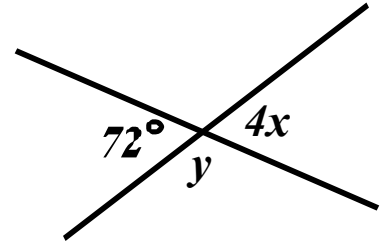


Worksheet 2015-8EM-00006(2)

(1) Determine the value(s) of x and/or y in each of the following sketches. Also give complete reasons.

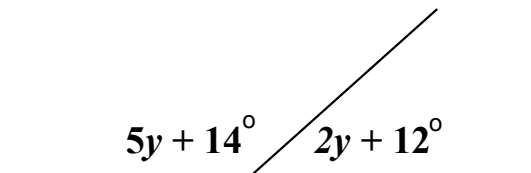
(a)



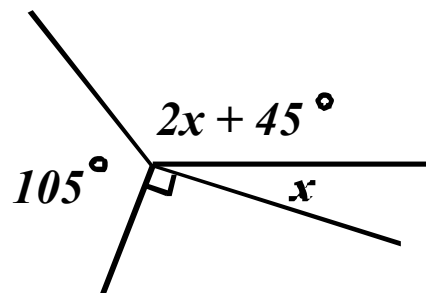
(b)



(c)

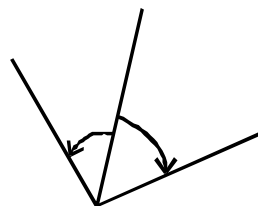


(d)

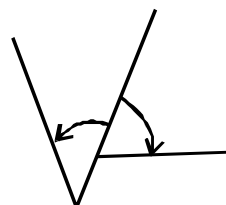


(2) Which of the following pairs of indicated angles are adjacent? If not adjacent, motivate why not.

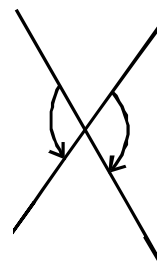
(a)



(b)

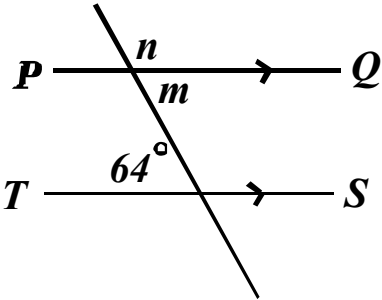


(c)

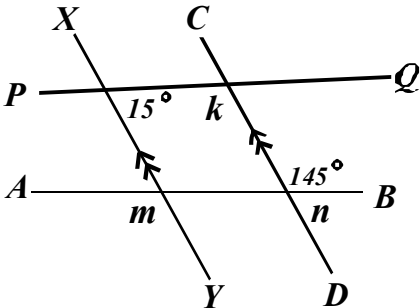


(3) Determine the value(s) of m , n and/or k in each of the following sketches. Also give complete reasons.

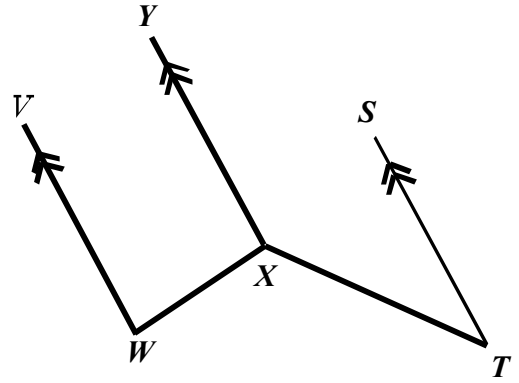
(a)



(b)



- (i) $W\hat{X}T$
- (ii) $X\hat{T}S$
- (iii) $T\hat{X}Y$

$$\begin{aligned} \widehat{WXT} &= 154^\circ \text{ with } \widehat{TXY} = 3x + 52^\circ \\ \text{and } \widehat{WXY} &= 4x - 14^\circ \end{aligned}$$


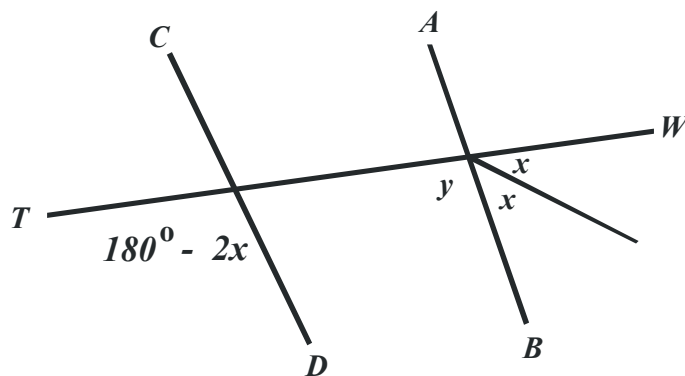
- (c) Calculate, with reasons: (i) $\hat{W}$
(ii) $\hat{T}$

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

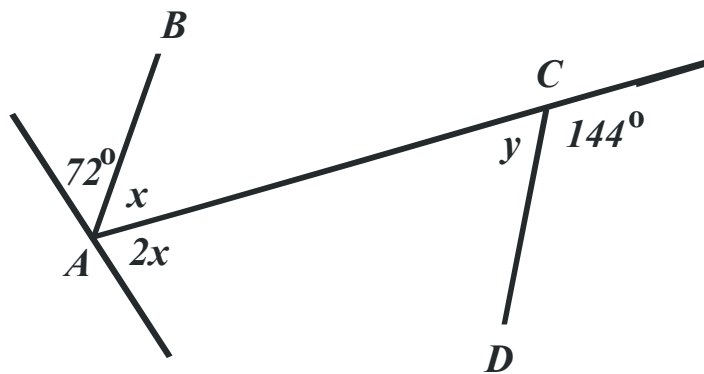
(5) Write three conditions under which two lines will be parallel to one another.

(6) Prove that $AB \parallel CD$ in each of the following sketches. Show all calculations:

(a)



(b)



(c)

