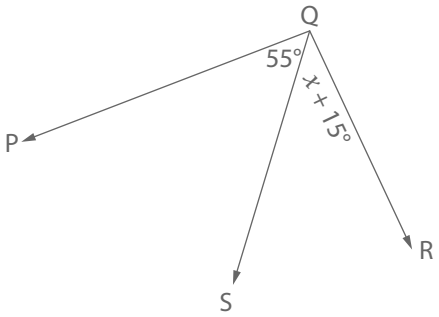
Geometry of straight lines

Perpendicular and intersecting lines

1. ∠PQR is a quarter of a revolution.

Find the value of x.

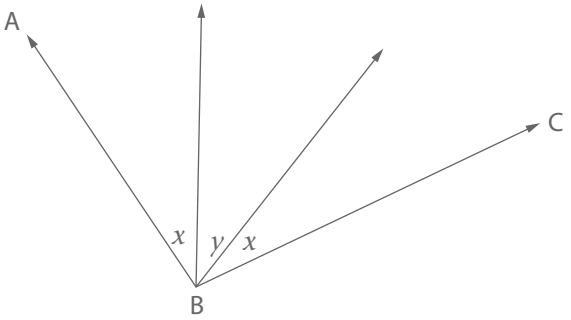


2. In each case state whether the following statement is True or false: 'AB is perpendicular to BC'

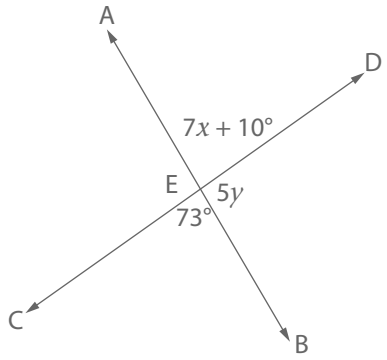
a) $2x$ is the complement of y

b) $x = 22°$ and y is half of a right angle

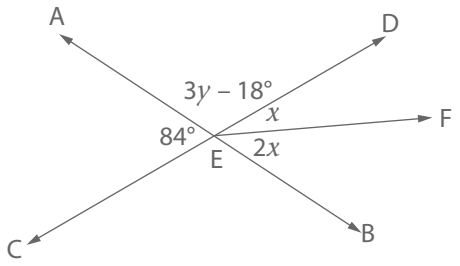
c) $x = 20°$ and $y = 2x + 10°$



3. Find the values of x and y.



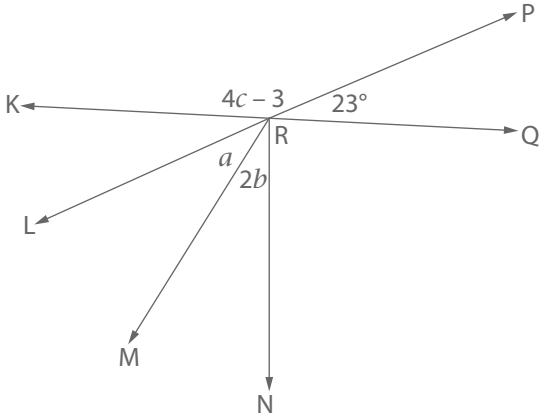
4. Find the values of x and y.



5. KQ and LP are straight lines. LR is the bisector of ∠KRM and QR ⊥ RN.

a) Find the values of a and b.

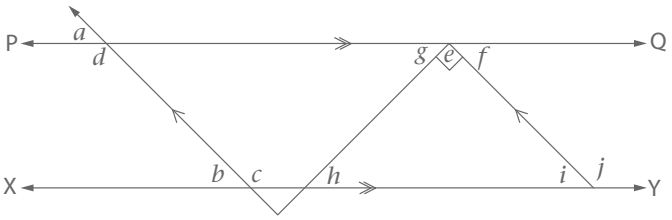
b) Find the value for c in three different ways.



Geometry of straight lines

Parallel lines

1. Write down in terms of a to j:



a) three pairs of equal alternate angles

b) three pairs of equal corresponding angles

c) two pairs of supplementary co-interior angles

d) two sets of three angles that form supplementary co-interior angles

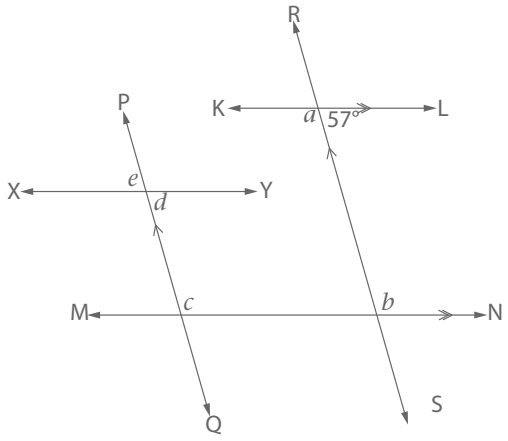
e) two sets of three angles each that add up to 180°

f) two pairs of angles that add up to 90°

g) three pairs of adjacent supplementary angles

2. Write down (in that order) the values of a to e.

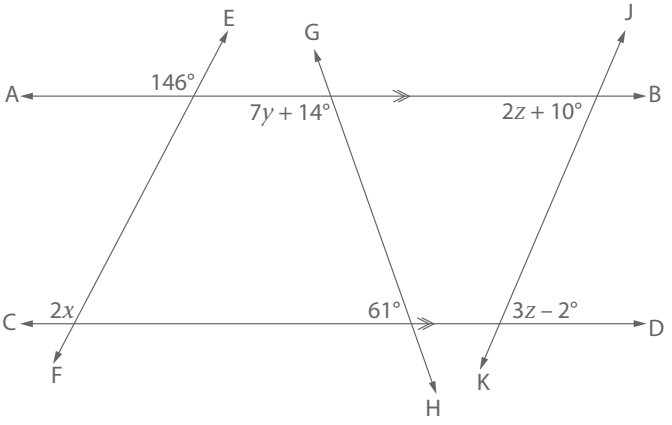
(Remember to give a reason for each answer.)



3. **a)** Find the value of x.

b) Calculate the value of y.

c) Determine the value of z.



d) True or false? (Give an explanation for each answer.)

i) EF || GH

ii) EF || JK