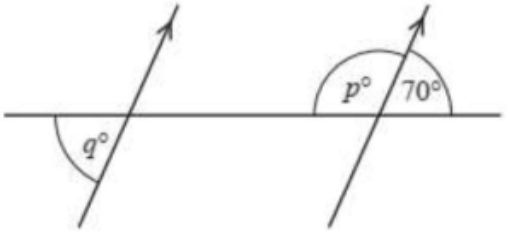
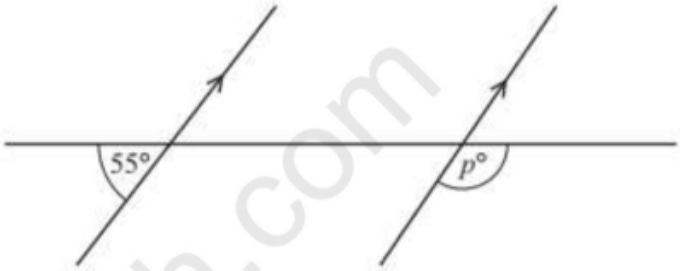
Past Papers Worksheet P2 Parallel Lines IGCSE Mathematics 0580

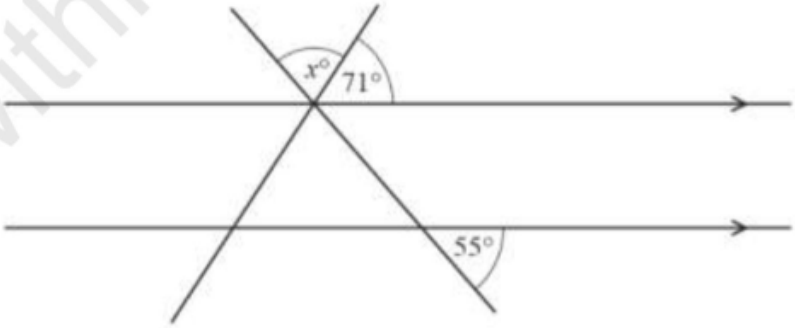
1. The diagram shows a straight line intersecting two parallel lines.
   Find the value of p and the value of q. [2]
   0580/22/M/J/17 Q8)



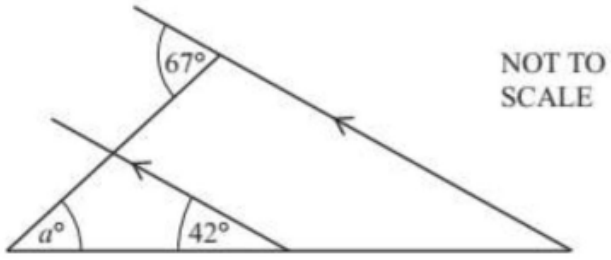
2. Find the value of p [2]
   0580/21/O/N/13 Q3)



3. The diagram shows two straight lines intersecting two parallel lines. Find the value of x. [3]
   0580/21/O/N/22 Q5)



4. Find the value of a
   0580/22/O/N/16 Q2)

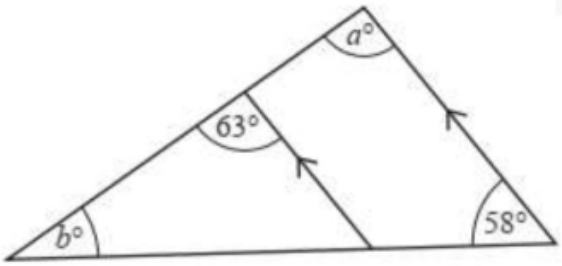


5. Complete the statements. [4]

   a = ... because .....

   b = ... because .....

   0580/22/F/M/18 Q15)

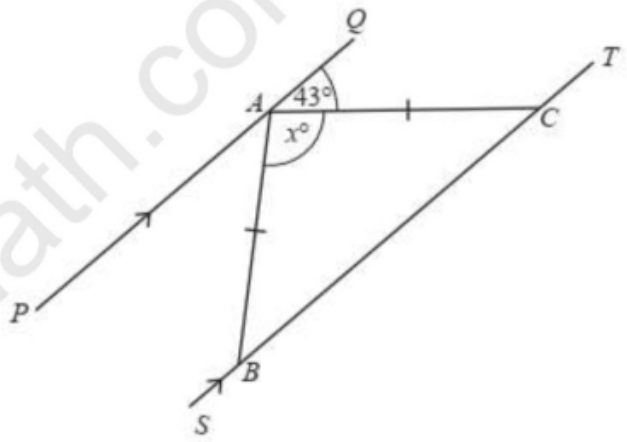


6. The diagram shows two parallel lines PAQ and SBCT.

   AB = AC and angle QAC = 43°.

   Find the value of x [2]

   0580/21/M/J/18 Q5)



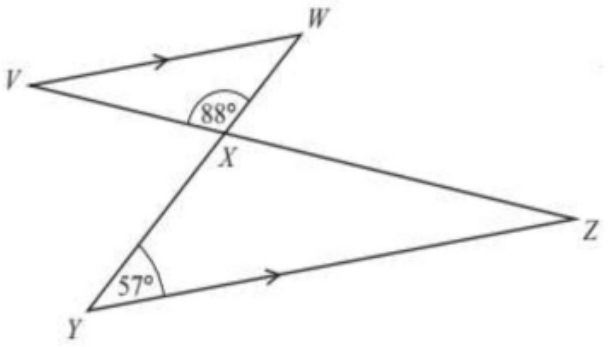
7. Two straight lines VZ and YW intersect at X.

   VW is parallel to YZ, angle XYZ = 57° and

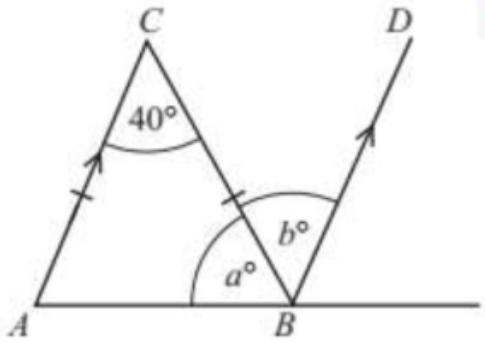
   angle VXW = 88°.

   Find angle WVX. [2]

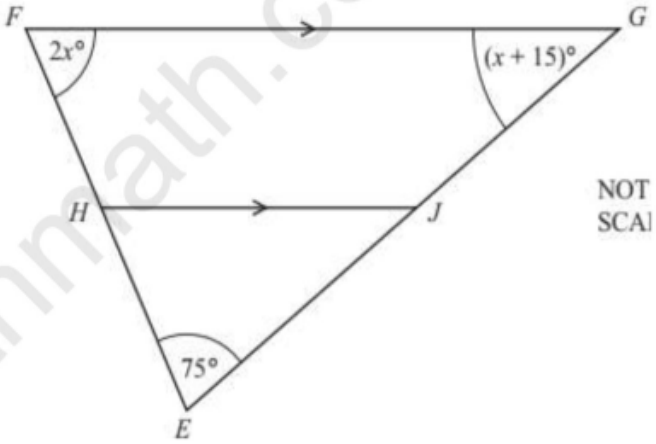
   0580/22/F/M/15 Q20(a)



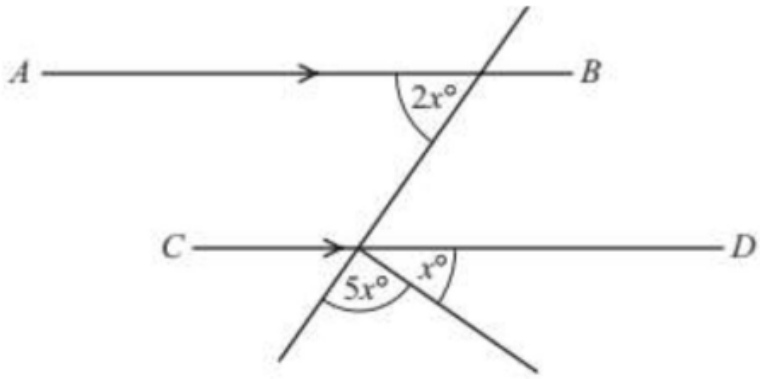
8. Triangle ABC is isosceles and AC is parallel to BD.
   Find the value of a and the value of b. [2]
   0580/21/M/J/16 Q9)



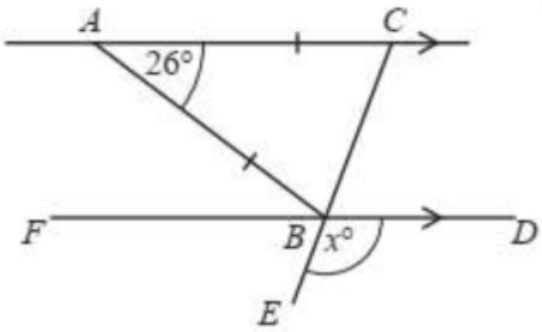
9. EFG is a triangle.
   HJ is parallel to FG.
   Angle FEG = 75°.
   Angle EFG = $2x°$ and angle FGE = $(x + 15)°$.
   (i) Find the value of x.[2]
   (ii) Find angle HJG. [1]
   0580/43/M/J/11 Q10 (b)



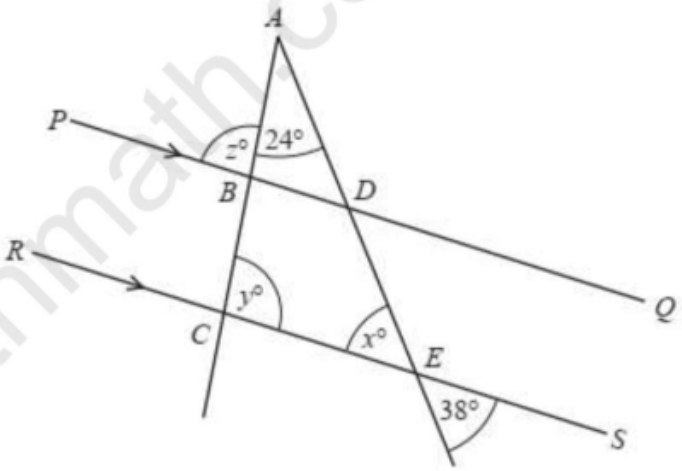
10. AB is parallel to CD.
    Calculate the value of x.[3]
    0580/21/M/J/11 Q9)



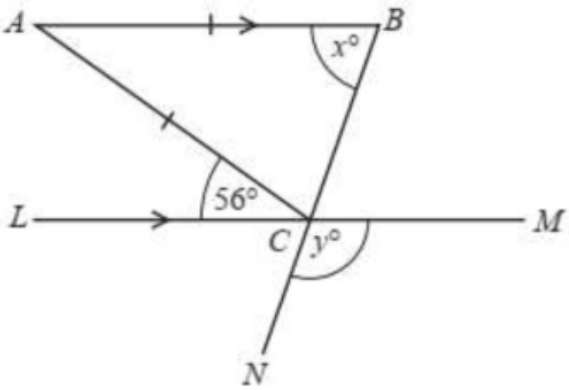
11. AC is parallel to FBD, ABC is an isosceles triangle and CBE is a straight line.
Find the value of x. [3]
0580/42/M/J/19 Q2)(a)



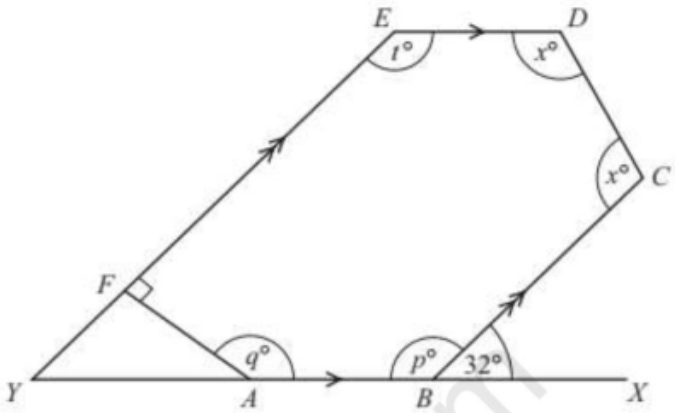
12. PQ is parallel to RS.
ABC and ADE are straight lines.
Find the values of x, y and z. [3]
0580/43/M/J/17 Q2)(a)



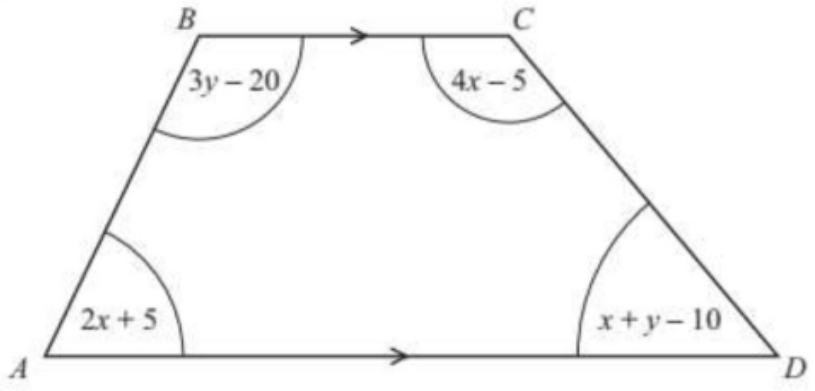
13. The diagram shows an isosceles triangle ABC with AB = AC.
LCM and BCN are straight lines and LCM is parallel to AB.
Angle ACL = 56°.
Find the value of x and the value of y. [4]
0580/21/O/N/18 Q16)



14. ABCDEF is a hexagon.
AB is parallel to ED and BC is parallel to FE.
YFE and YABX are straight lines.
Angle CBX = 32° and angle EFA = 90°.
Calculate the value of
(i) p, [1]
(ii) q, [2]
(iii) t, [1]
(iv) x, [3]
0580/43/M/J/14 Q7 (a)



15. The trapezium, ABCD, has four angles as shown.
All the angles are in degrees.
(i) Show that $7x + 4y = 390$. [1]
(ii) Show that $2x + 3y = 195$. [1]
(iii) Solve these simultaneous equations. [4]
(iv) Use your answer to part (d)(iii) to find the sizes of all four angles of the trapezium. [1]
0580/43/O/N/13 Q4



Answers

Q1) 110 , 70	Q6) 94	Q11) 103
Q2) 125	Q7) 35	Q12) 38 ,118 , 62
Q3) 54	Q8) 70 , 40	Q13) 62 and 118
Q4) 25	Q9) (i)30 (ii)135	Q14) (i)148 (ii) 122 (iii)148 (iv)106
Q5) a = 63 (corresponding angles) b = 59 (sum of angles in a triangle)	Q10) 22.5	Q15) (iii)30 , 45 (iv) 65, 115, 115, 65