



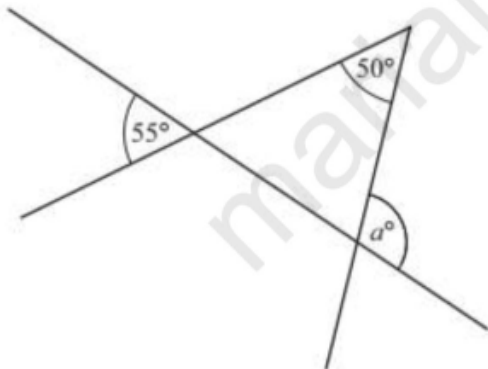
1. The three angles in a triangle are  $5x^\circ$ ,  $6x^\circ$  and  $7x^\circ$
- (a) Find the value of  $x$ . [2]
- (b) Work out the size of the largest angle in the triangle. [1]

0580/23/M/J/17 Q10)

2. The three angles in a triangle are  $2x^\circ$ ,  $75^\circ$  and  $(x+15)^\circ$
- Find the value of  $x$ . [2]

0580/43/M/J/11 Q10)

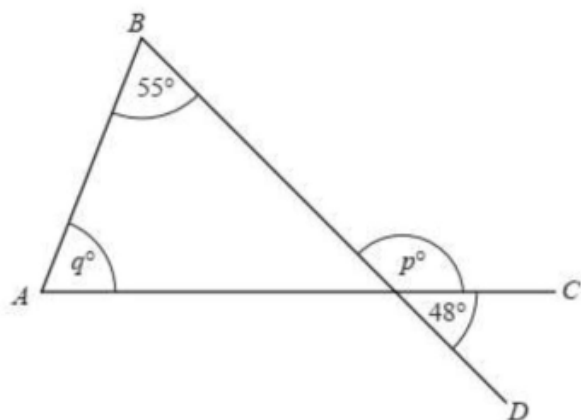
3. Use the information in the diagram to find the value of  $a$ .



0580/21/M/J/13 Q4)

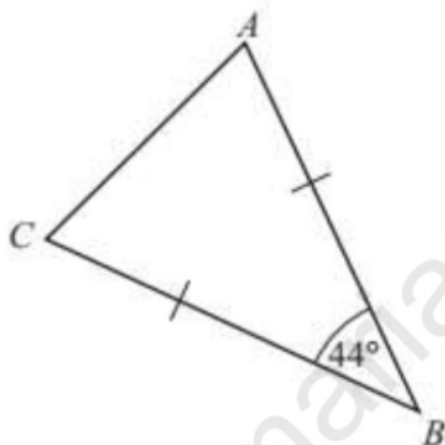


4. In the diagram, AC and BD are straight lines.  
Find the value of  $p$  and the value of  $q$ . [3]



0580/41/O/N/19 Q1)

5. Triangle ABC is an isosceles triangle with  $AB = CB$ .



Angle  $ABC = 44^\circ$ . Find angle  $ACB$ . [2]

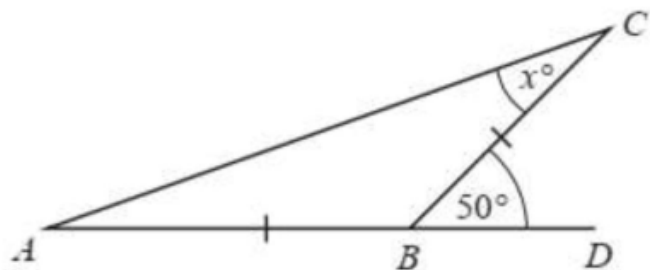
0580/23/O/N/16 Q15(a)

6. One angle of an isosceles triangle is  $48^\circ$ .  
Write down the possible pairs of values for the remaining two angles.  
..... and ..... , ..... and ..... [2]

0580/43/O/N/13 Q4(a)

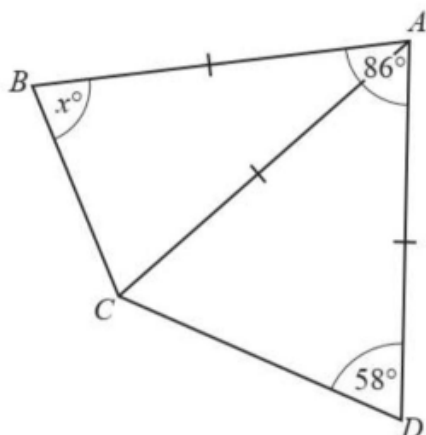


7.  $AB = BC$  and  $ABD$  is a straight line. Find the value of  $x$ . [2]



0580/22/M/J/20 Q3)

8. Triangle  $ABC$  and triangle  $ACD$  are isosceles.

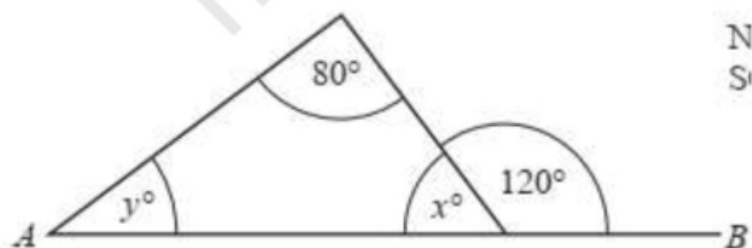


Angle  $DAB = 86^\circ$  and angle  $ADC = 58^\circ$ .

Find the value of  $x$  [3]

0580/22/O/N/21 Q4)

9. In the diagram,  $AB$  is a straight line.

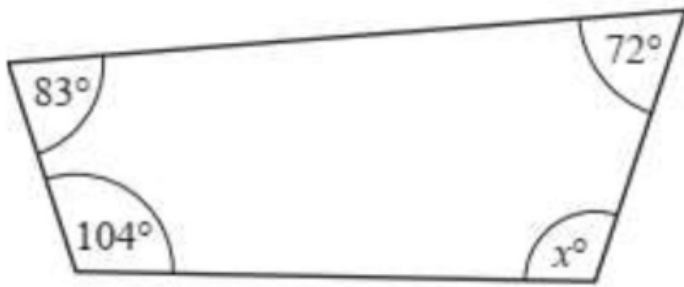


Find the value of  $x$  and the value of  $y$ . [2]

0580/22/O/N/17 Q5)



10. The diagram shows a quadrilateral.



Find the value of  $x$ . [1]

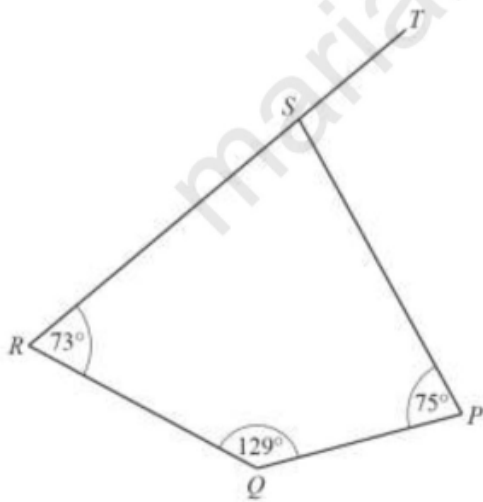
**0580/21/O/N/17 Q1)**

11. The angles of a quadrilateral are  $x^\circ$ ,  $(x + 5)^\circ$ ,  $(2x - 25)^\circ$  and  $(x + 10)^\circ$ .

Find the value of  $x$ . [3]

**0580/41/O/N/19 Q1(b)**

12. PQRS is a quadrilateral.



RST is a straight line. Find angle PST [2].

**0580/23/M/J/22 Q3)**

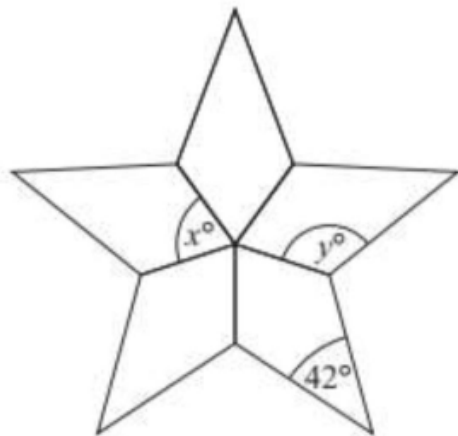


13. The diagram is made from 5 congruent kites.

Work out the value of

(a)  $x$ , [1]

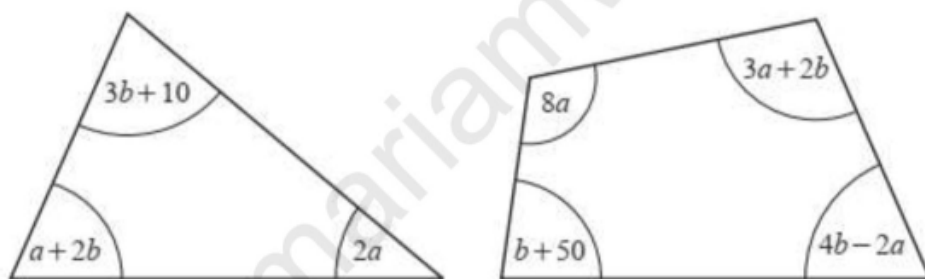
(b)  $y$ , [2]



0580/23/M/J/16 Q13)

14. The diagram shows a triangle and a quadrilateral.

All angles are in degrees.



(i) For the triangle, show that  $3a + 5b = 170$ . [1]

(ii) For the quadrilateral, show that  $9a + 7b = 310$ . [1]

(iii) Solve these simultaneous equations.

Show all your working. [3]

(iv) Find the size of the smallest angle in the triangle. [1]

0580/43/O/N/19 Q2(a)

**Answers**

Q1) (a)10 (b)70	Q8) 79
Q2) (b)(i) 30	Q9) $x = 60$ , $y = 40$
Q3) 105	Q10) 101
Q4) $p = 132$ , $q = 77$	Q11) 74
Q5) 68	Q12) 97
Q6) 48 and 84, 66 and 66	Q13) (a)72 (b)123
Q7) $x = 25^\circ$	Q14) (iii) 15, 25 (iv) 30