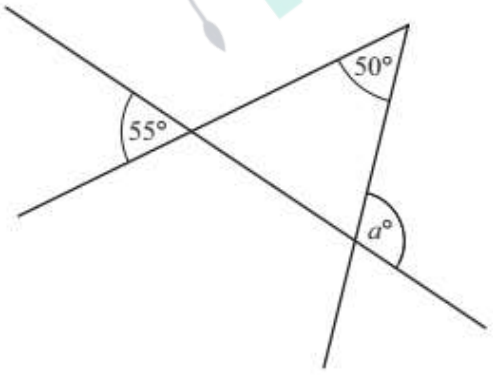
Past Papers Worksheet P2 Angle Properties of Triangles and Quadrilaterals IGCSE Math 0580

1. The three angles in a triangle are $5x°$, $6x°$ and $7x°$
   (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 $2x°$, 75° and $(x + 15)°$
   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.

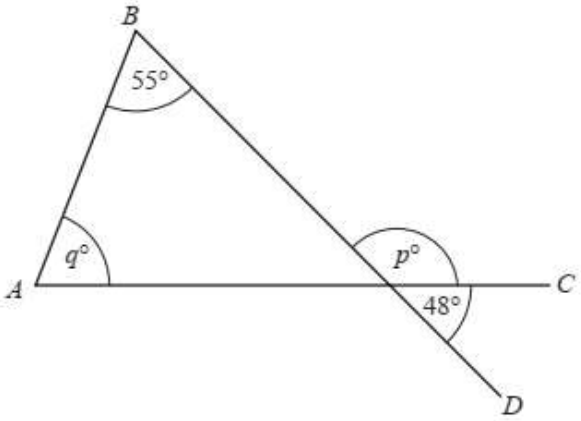


0580/21/M/J/13 Q4)

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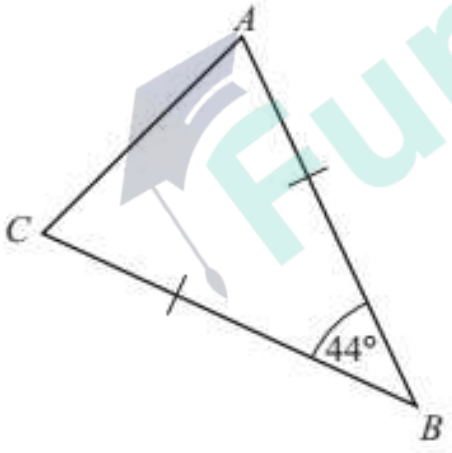


4. In the diagram, AC and BD are straight lines.
   Find the value of p and the value of q. [3]



0580/41/O/N/19 Q1)

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

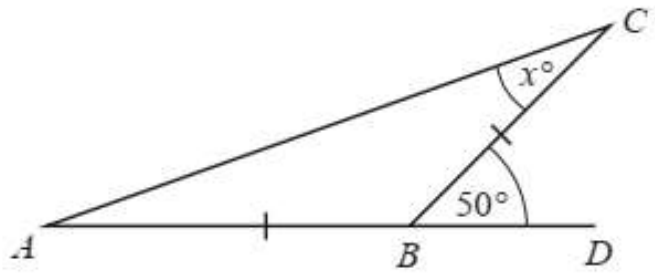


Angle ABC = 44°. Find angle ACB. [2]
0580/23/O/N/16 Q15(a)

6. One angle of an isosceles triangle is 48°.
   Write down the possible pairs of values for the remaining two angles.
   ..... and ..... , ... and ..... [2]
   0580/43/O/N/13 Q4(a)

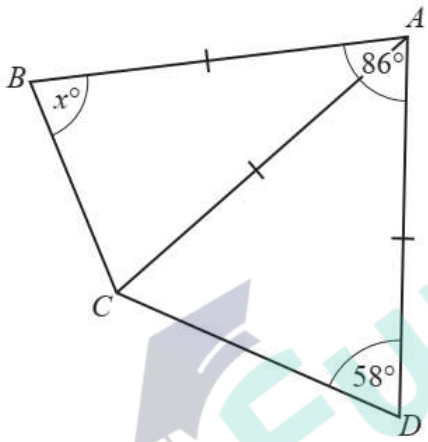
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7. AB = BC and ABD is a straight line. Find the value of x. [2]



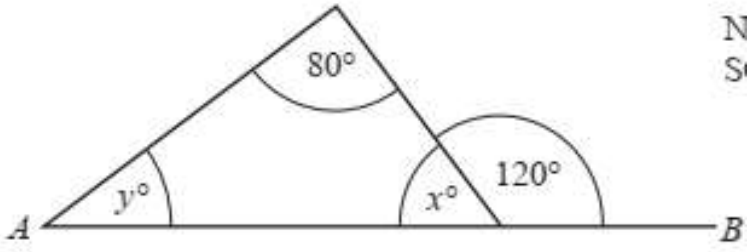
0580/22/M/J/20 Q3)

8. Triangle ABC and triangle ACD are isosceles.



Angle DAB = 86° and angle ADC = 58°.
Find the value of x [3]
0580/22/O/N/21 Q4)

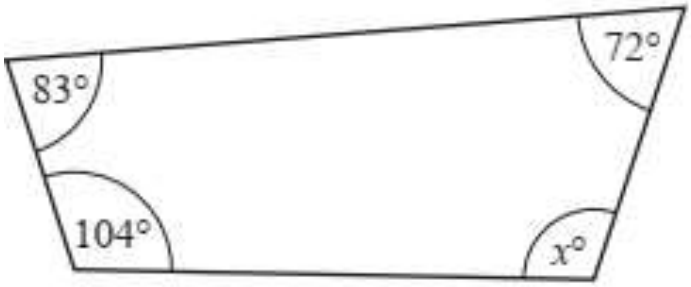
9. In the diagram, AB is a straight line.



Find the value of x and the value of y. [2]
0580/22/O/N/17 Q5)

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10. The diagram shows a quadrilateral.



Find the value of x. [1]

0580/21/O/N/17 Q1)

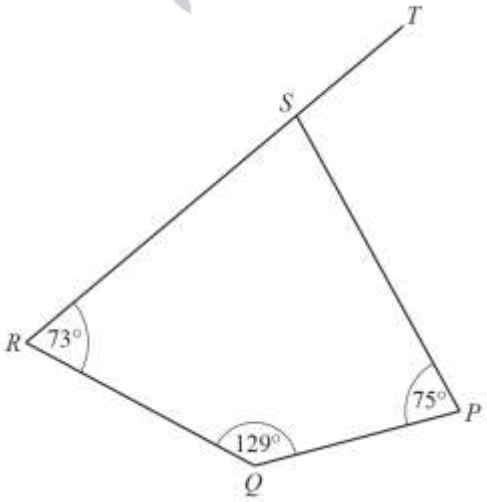
11. The angles of a quadrilateral are

x °, (x +5)°, (2x - 25) ° and (x +10)°.

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].

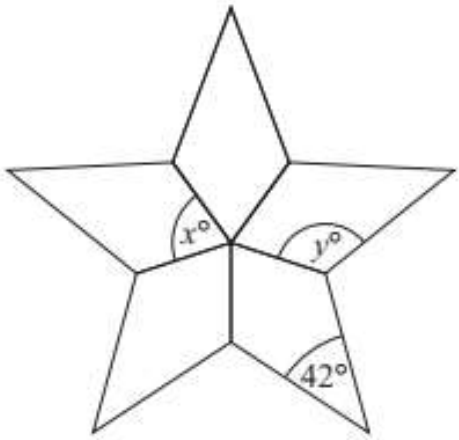
0580/23/M/J/22 Q3)

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13. The diagram is made from 5 congruent kites.

Work out the value of

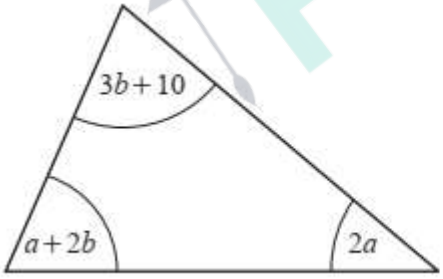
(a) x, [1] (b) y. [2]

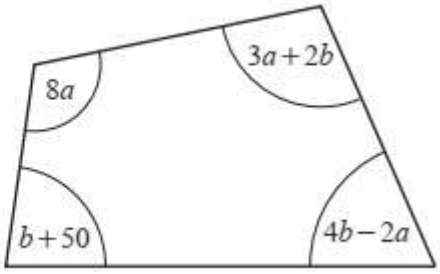


0580/23/M/J/16 Q13)

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)

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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°	Q14) (iii) 15 , 25 (iv) 30

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