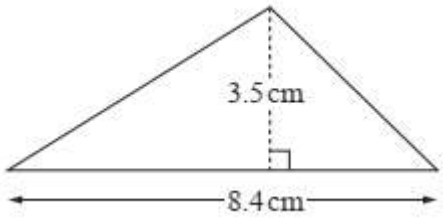
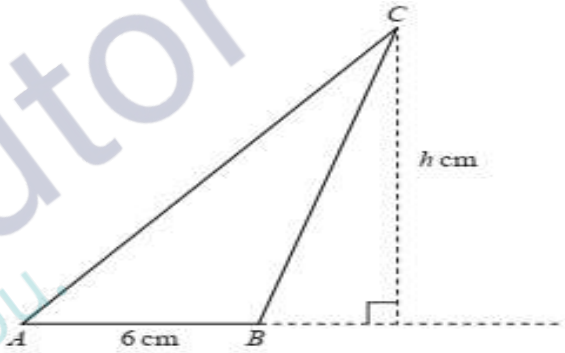
Past Papers Worksheet P2 Area and Perimeter IGCSE Mathematics 0580



1. Calculate the area of this triangle.
   0580/22/M/J/19 Q7)

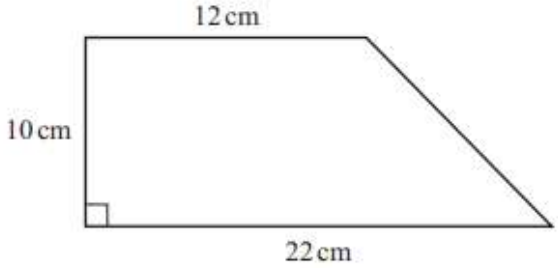


2. The area of a triangle is 528cm^2.
   The length of its base is 33cm.
   Calculate the perpendicular height of the triangle [2]
   0580/22/O/N/17 Q7)



3. The area of triangle ABC is 27 cm^2 and AB = 6cm.
   Calculate the value of h [2]
   0580/22/O/N/20 Q7)

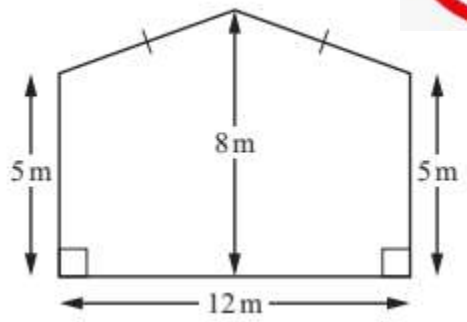
4. Find the area of the trapezium. [2]
   0580/22/O/N/13 Q7)



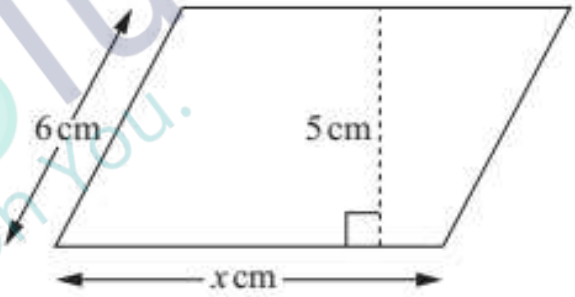
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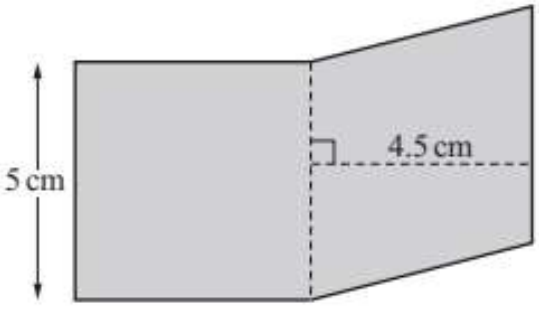
5. The diagram shows the front face of a barn.
   The width of the barn is 12m.
   The height of the barn is 8m.
   The sides of the barn are both of height 5m.
   Work out the area of the front face of the barn.
   0580/22/M/J/15 Q18(a)



6. The area of this parallelogram is 51.5 cm^2.
   Work out the value of x. [2]
   0580/23/M/J/16 Q3)



7. The shaded shape is made by joining a square and a rhombus.
   Work out
   (a) the perimeter of the shaded shape, [1]
   (b) the area of the shaded shape. [2]
   0580/23/O/N/16 Q14)



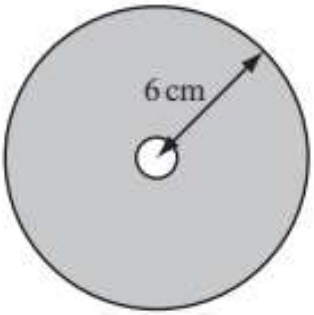
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8. Calculate the area of a circle with radius 5.1cm.
   Give you answer in exact form [2]
   0580/21/M/J/18 Q6)

9. The circumference of a circle is 30cm.
   Calculate the radius of the circle.
   Give you answer in exact form [2]
   0580/23/M/J/15 Q15 (a)

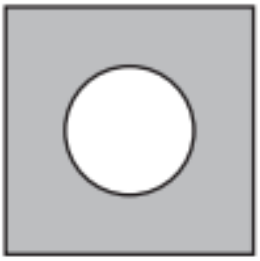
10. The diagram shows a circular disc with radius 6 cm.
    In the centre of the disc there is a circular hole with radius 0.5 cm. Calculate the exact area of the shaded section. [3]
    0580/21/O/N/12 Q12)



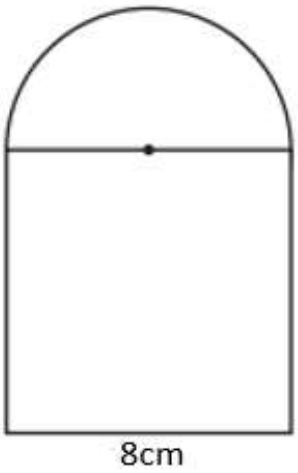
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11. The diagram shows a circle of radius 5cm in a square of side 18cm.
    Calculate the shaded area in the form $a-b\pi$ where a and b are integers. [3]
    0580/22/O/N/10 Q13)



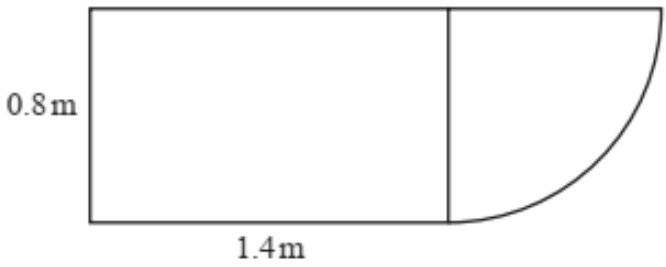
12. The diagram shows a shape made from a square of side length 8 cm and a semi-circle. Calculate the exact area of the shape area in the form $a+b\pi$ where a and b are integers. Give the units of your answer. [5]
    0580/23/O/N/17 Q20)



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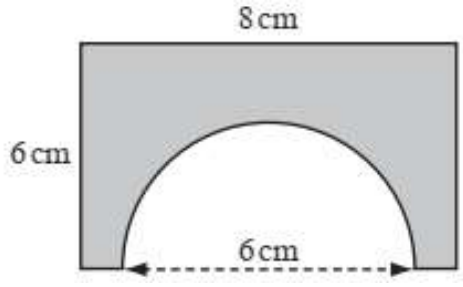
13. The top of a desk is made from a rectangle and a quarter circle.
    The rectangle measures 0.8m by 1.4m.
    Calculate the exact surface area of the top of the desk in the form of $a + b\pi$ [3]
    0580/21/M/J/10 Q7)



14. The diagram shows the surface of a garden pond, made from a rectangle and two semicircles.
    The rectangle measures 3m by 1.2m.
    Calculate the exact area of this surface.
    0580/41/M/J/19 Q5) (a)



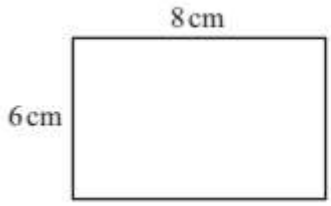
15. A semicircle of diameter 6 cm is cut from a rectangle with sides 6 cm and 8 cm. Calculate the exact perimeter of the shaded shape in the form a+bπ where a and b are integers. [3]
    0580/21/O/N/10 Q15)

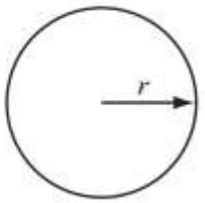


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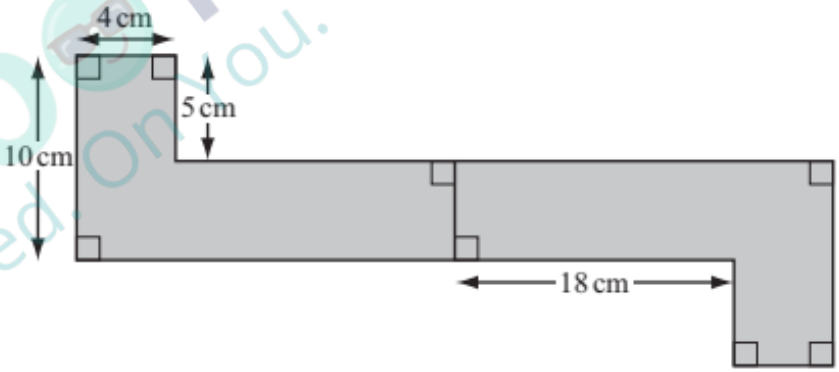


16. The perimeter of the rectangle is the same length as the circumference of the circle.
Calculate the exact radius, r. [3]
0580/22/M/J/12 Q7)





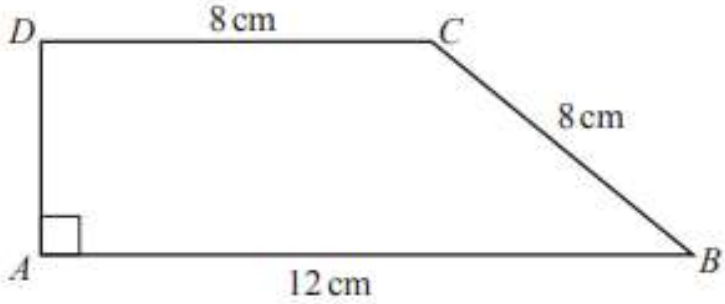
17. The shaded shape has rotational symmetry of order 2.
Work out the shaded area. [3]
0580/23/M/J/13 Q7)



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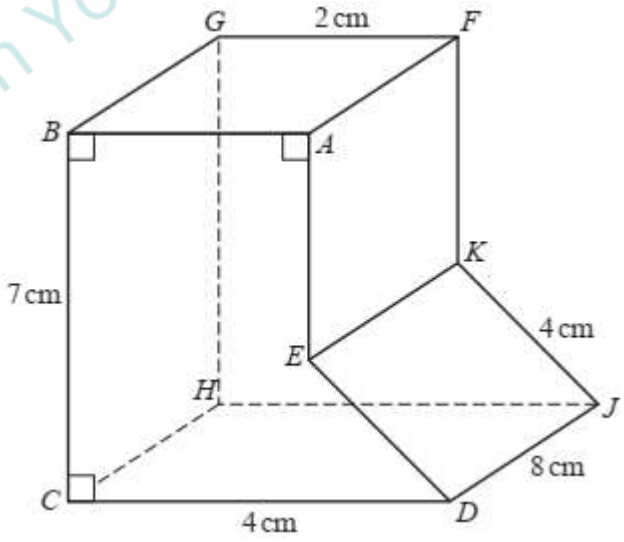
18. Calculate the area of this trapezium in the simplest surd form $a\sqrt{b}$. [4]



0580/21/M/J/16 Q23)

19. The diagram shows a solid metal prism with cross section ABCDE.
Calculate the exact area of the cross section ABCDE giving your
answer in the form a+2$\sqrt{b}$, where a and b are integers.
[6]

0580/43/M/J/17 Q4(a)(i)



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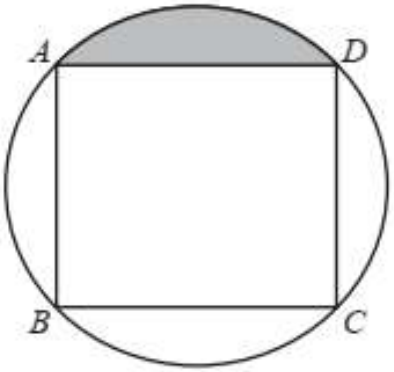
20. The vertices of a square ABCD lie on the circumference of a circle, radius 8cm.

(a) Calculate the area of the square. [2]

(b) (i) Calculate the area of the shaded segment. [3]

(ii) Calculate the perimeter of the shaded segment. [4]

0580/42/F/M/18 Q2) (a)



Answers

Q1) 14.7	Q8) 26.01π	Q15) $22 + 3\pi$
Q2) 32	Q9) $\frac{15}{\pi}$	Q16) $\frac{14}{\pi}$
Q3) 9	Q10) $35.75\ \pi$	Q17) 260
Q4) 170	Q11) $324-25\pi$	Q18) $40\sqrt{3}$
Q5) 78	Q12) $100 + 8\pi$, cm^2	Q19) $14+2\sqrt{3}$
Q6) 10.3	Q13) $1.12+ 0.16\pi$	Q20) 128 (b)(i) 18.3 (ii) 23.9
Q7) (a) 30 (b) 47.5	Q14) $10.8 + 0.36\pi$	

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