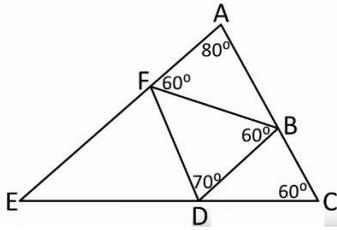
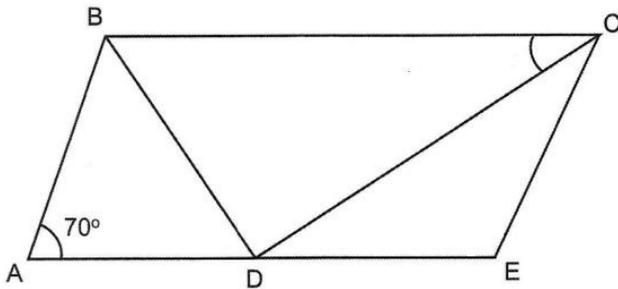


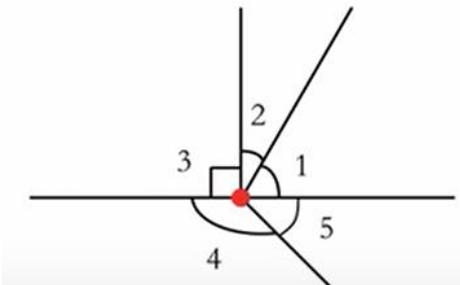
1. Find the measure of $\angle EDF$ in degrees.



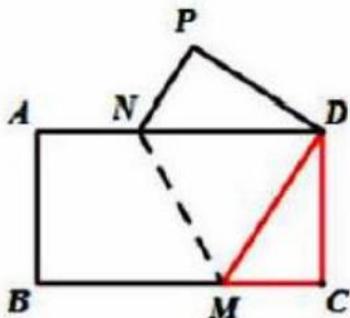
2. As shown below, $ABCE$ is a parallelogram, $EC=ED$, find $\angle BCD$ in degrees.



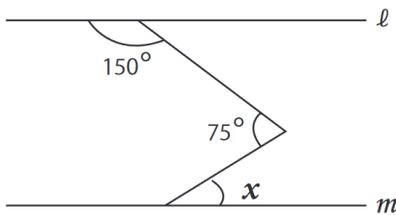
3. As shown below, if $\angle 2 = 30^\circ$, $\angle 5 = 50^\circ$, $\angle 3 = 90^\circ$. Find $\angle 4 - \angle 1$ in degrees.



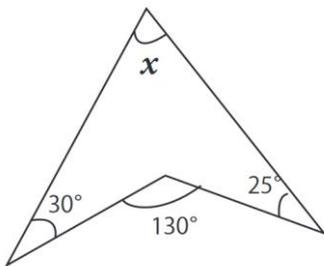
4. There is a piece of rectangular paper, $ABCD$. This paper is folded along the dotted line NM , such that point B overlaps with point D . If $\angle MDC = 24^\circ$, find $\angle DNM$ in degrees.



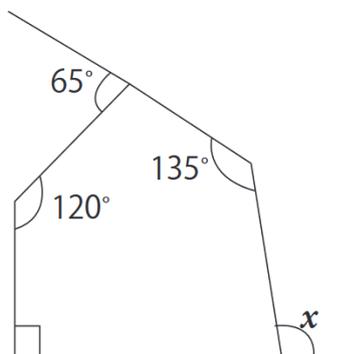
5. In the figure below, straight line m and l are parallel to each other, the measure of two angles are given. Find $\angle x$.



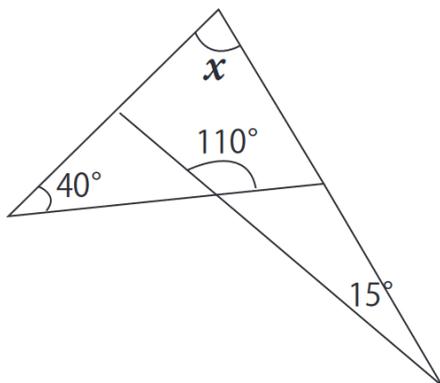
6. As shown below, three angles are known. Find $\angle x$.



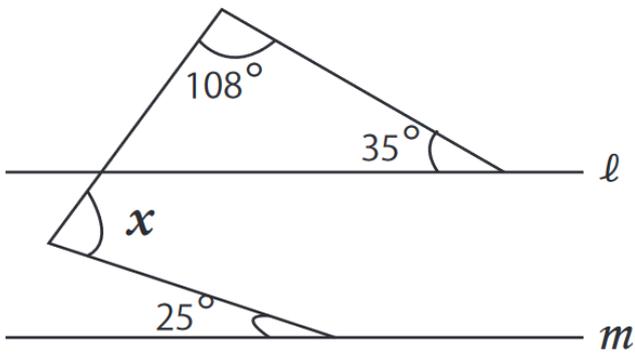
7. As shown below, four angles are already known. Find $\angle x$.



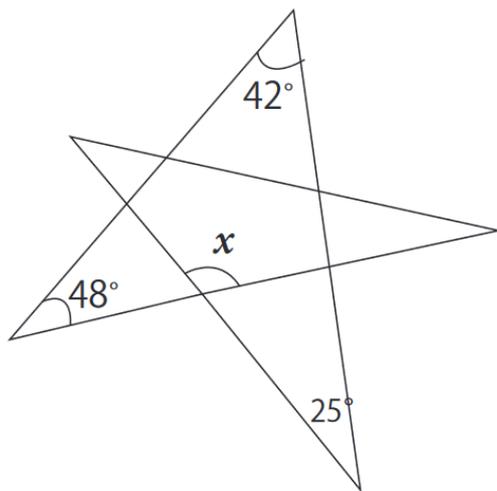
8. As shown below, three angles are known. Find $\angle x$.



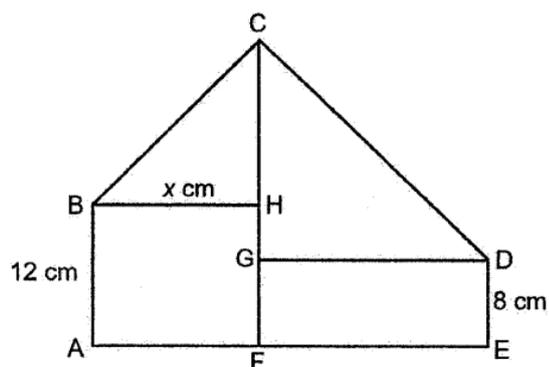
9. In the figure below, straight line m and l are parallel to each other, the measure of 3 angles are given. Find $\angle x$.



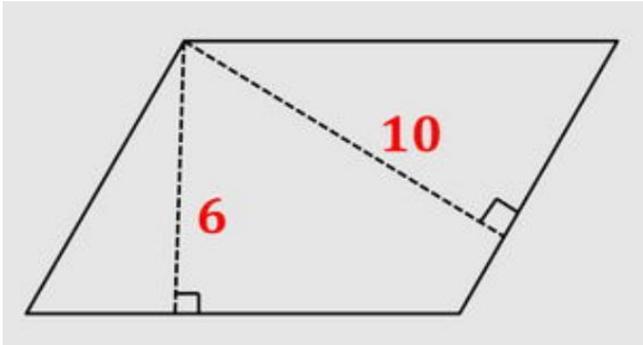
10. As shown below, three angles are known. Find $\angle x$.



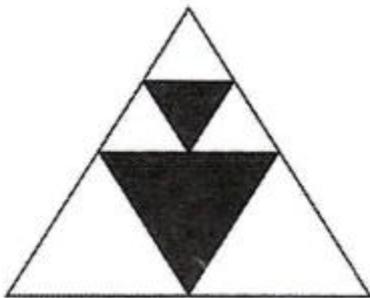
11. The figure is made up of two rectangles, ABHF and FGDE, and two right-angled isosceles triangles, BCH and DCG. $BA = 12$ cm, $DE = 8$ cm. If $BH = x$ cm and $GD = (2x - 10)$ cm, find the total area of this figure.



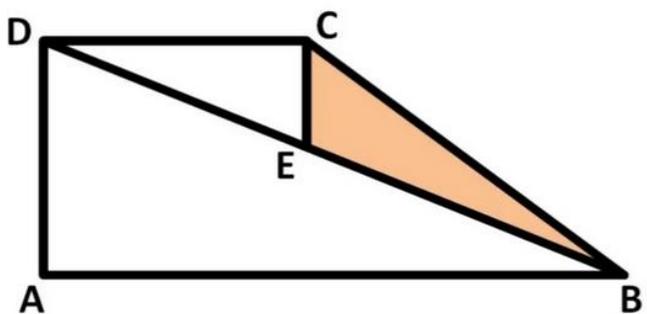
12. The figure shown below is a parallelogram, with a perimeter of 48 cm. The two heights drawn are 6 cm and 10 cm respectively. Find the area of this parallelogram.



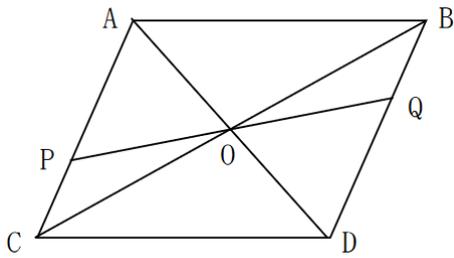
13. The figure below is made up of equilateral triangles. If the largest triangle has an area of 64, what is the total area of the shaded region?



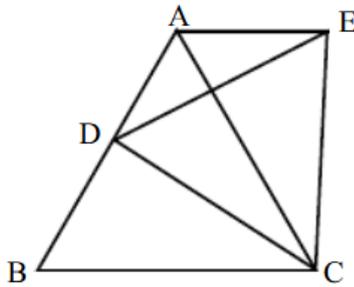
14. As shown below, ABCD is a trapezium. E is the midpoint of BD. The area of triangle BCE is 15. CE is perpendicular to CD. Find the area of trapezium ABCD.



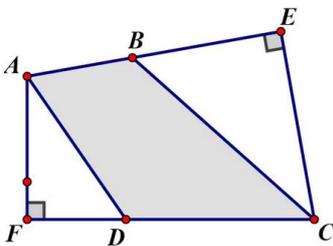
15. ABCD is a parallelogram. $AP=2PC$. Triangle AOP has an area of 40. Find the total area of ABCD.



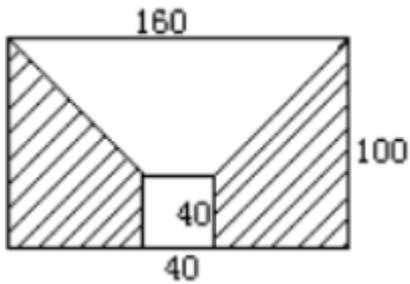
16. In the right-angled trapezium ABCE, $CE \perp BC$. D is the midpoint of AB. If $AE = 10$, $BC = 22$ and $CE = 20$. Find the area of triangle CDE.



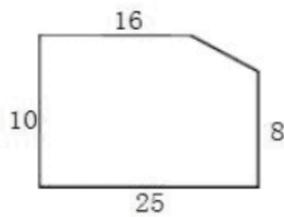
17. As shown below, if $AB=2$, $CE=6$, $DC=5$ and $AF=4$, and $\angle E = \angle F = 90^\circ$, find the area of the quadrilateral ABCD.



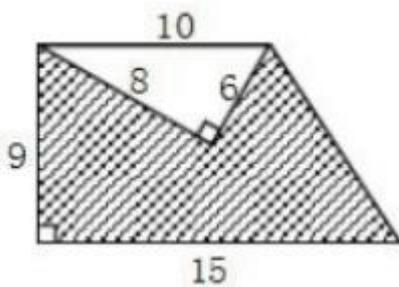
18. As shown below, a square with a side length of 40 is put inside a large rectangle with length = 160 and width = 100. Find the total area of the shaded region.



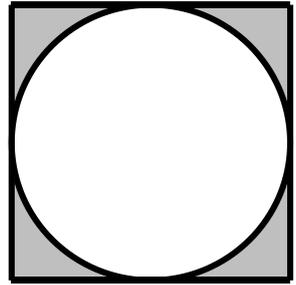
19. The figure below is formed by cutting a small triangle off an entire rectangle. Find the area of this figure.



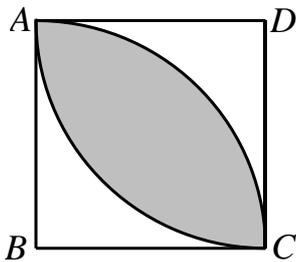
20. The figure below is a right-angled trapezium. Find the area of the shaded part.



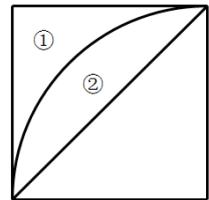
21. As shown in the diagram, given a circle with a radius of 2, find the area of the shaded region. (Take π as 3.14)



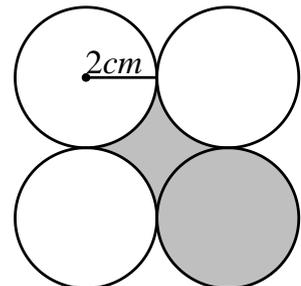
22. As shown in the diagram, the area of square ABCD is 6 square centimeters. Quarter circles are drawn with centers at points B and D within the square. Find the area of the shaded region. (Take $\pi = 3$)



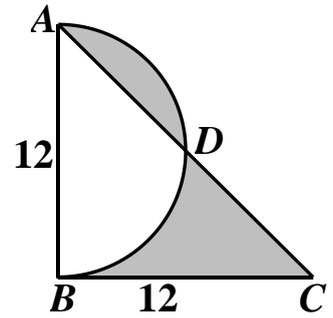
23. In the diagram, if the area of the square is 20, then what are the respective areas of ① and ②? ($\pi = 3.14$)



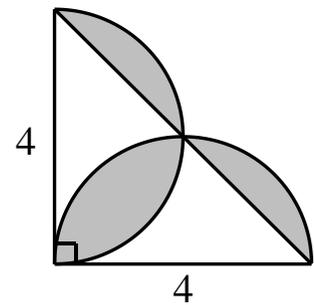
24. As shown in the diagram, the radius of each of the four circles is 2 cm. What is the area of the shaded region? ($\pi = 3.14$)



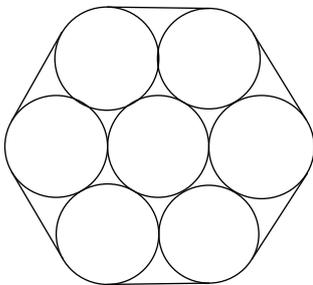
25. the isosceles right triangle ABC, a semicircle is drawn with AB as the diameter. Calculate the total area of the shaded region in the diagram. (Take π as 3.14)



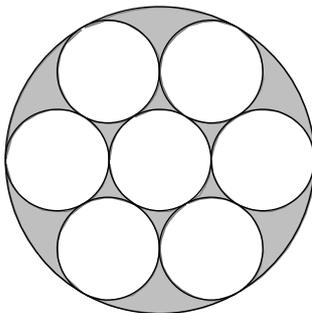
26. As shown below, in the isosceles right triangle, there are two semicircles. Calculate the combined area of the shaded regions in the diagram. (Take π as 3)



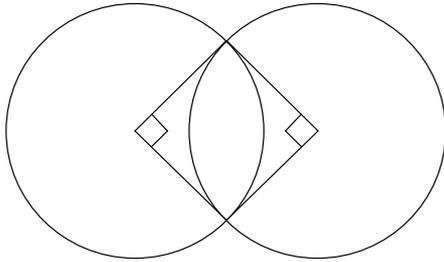
27. There are seven plastic pipes with a diameter of 5 centimeters each. They are bundled tightly with a rubber band as shown in the diagram. What is the length of the rubber band in centimeters? (Take π as 3)



28. A circular aluminum sheet with an area of 36 square centimeters is cut to create 7 identical circular aluminum pieces. What is the total area of the remaining edge and corner materials?



29. In the diagram, the side length of the square is 5 cm, and two vertices coincide with the centers of the two circles. What is the total area of the figure? (Take π as 3.14)



30. In the diagram, the area of the intersection between the two circles (i.e., the shaded region) is equal to $\frac{4}{15}$ of the area of the larger circle and also equal to $\frac{3}{5}$ of the area of the smaller circle. If the radius of the smaller circle is 5 centimeters, what is the radius of the larger circle in centimeters?

