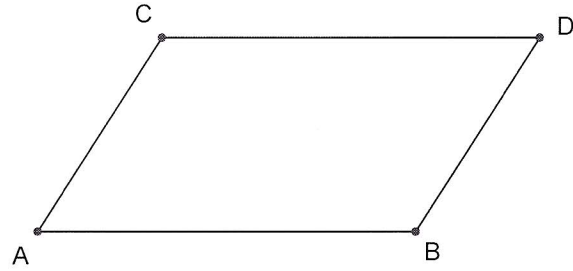
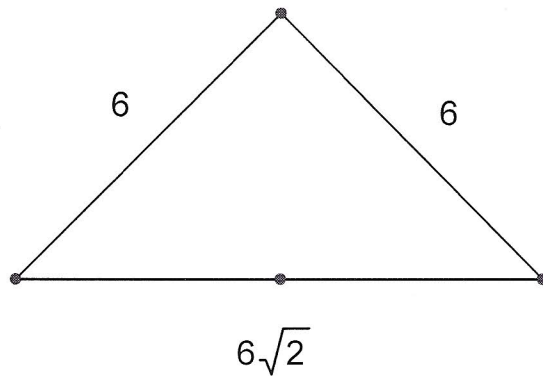


Leave all answers with radicals and pi, NO DECIMALS!

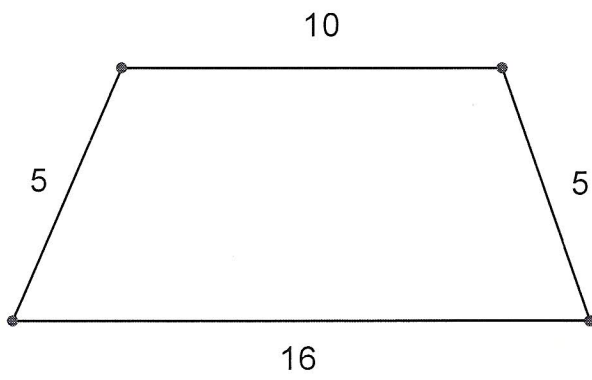
1. Find the area of a parallelogram whose sides are 14 and 6, and whose acute angle is 60 degrees.



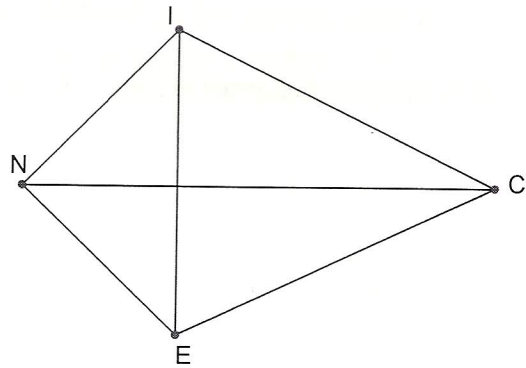
2. Find the area of this triangle.



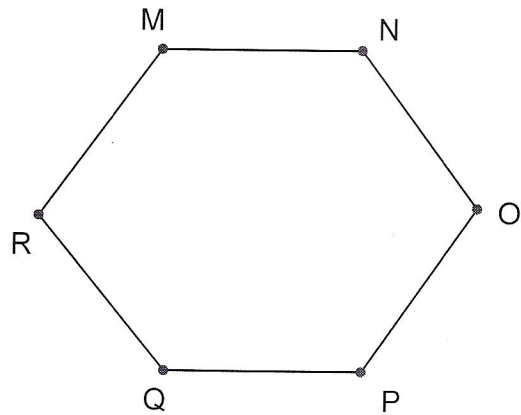
3. Find the area of this trapezoid.



4. NICE is a kite. Angle  $\text{INE}$  is a right angle.  $\text{IE} = 10$  and  $\text{IC} = 13$ . Find the area of NICE.



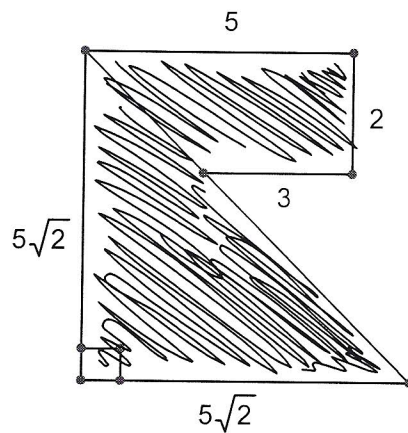
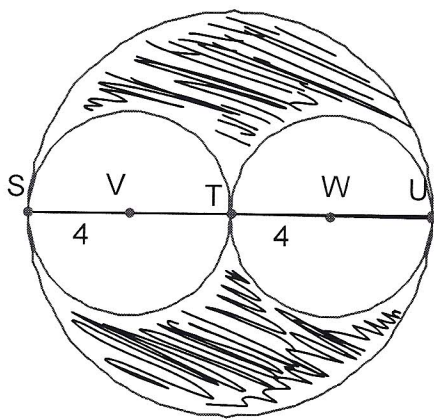
5. The radius of a regular hexagon is 6. Find the perimeter, the apothem, and the area.



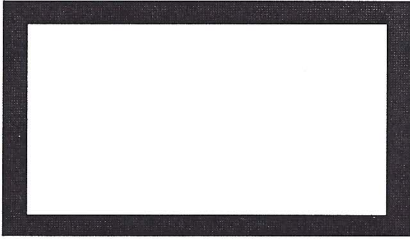
6. Find the area of the shaded part of each figure:

a.  $\text{SV} = \text{TW} = 4$

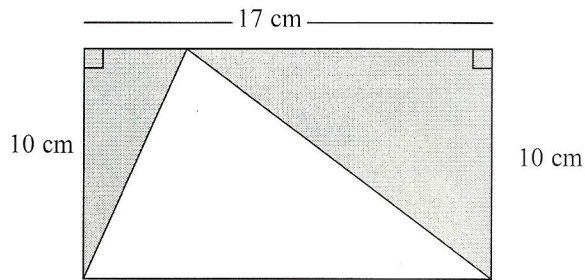
b.



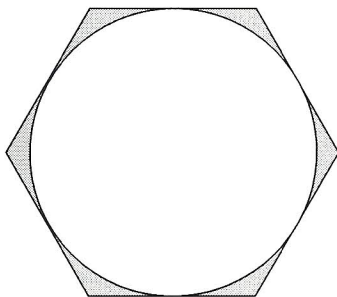
7. A rectangular picture measure 12 cm by 30 cm. It is mounted in a frame 2 cm wide. Find the area of the frame.



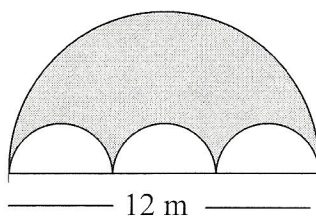
8. Find the area of the shaded region



9. Find the EXACT area of the shaded region. The figure is a regular hexagon with a perimeter of 60 inches.



10. Find the area of the shaded region.



11. Find the area of a rhombus whose perimeter is 52 and whose longer diagonal is 24.  
(Draw a picture to help!)

12. The following is a blueprint of your living room. One centimeter on the blueprint represents 5 feet. You want to purchase new flooring. The flooring you are hoping to purchase costs \$2.39 per square foot. Installation is free, but you have to pay 8% sales tax and a \$50 delivery fee. How much will your new floor cost?

