

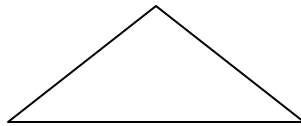


- *20 questions
- *Calculators allowed
- *Show all work/steps- use separate paper
- *Recommend time frame 45min -60min

NOTE: make sure all answers have the correct unit of measure.

Area of Basic Figures

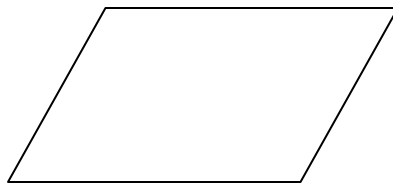
1. Find the area of the triangle. Base = 80in, height = 3.8in.



2. Find the area of the trapezoid. Base 1 = 7 cm, base 2 = 12 cm and the height = 6 cm.

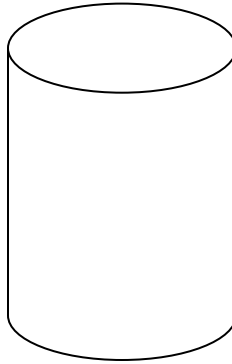


3. Find the area of the parallelogram. Base = 35 mm and height = 20 mm.



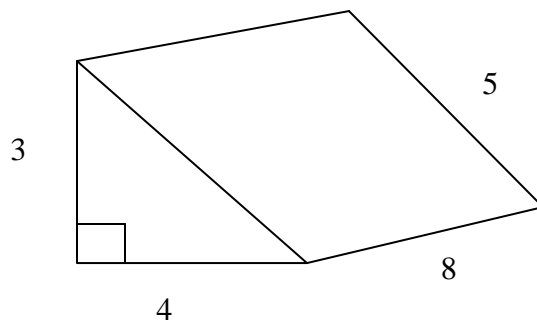
Surface Area of Basic Figures

4. Find the surface area of the cylinder. Radius = 17cm, height = 50cm.



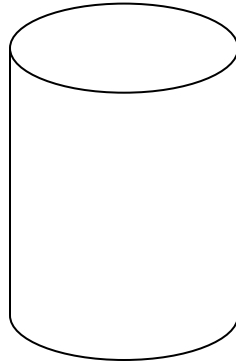
5. Find the surface area of a cube that has a side length $= (x + 1) \text{ cm}$.

6. Find the surface area of the prism.

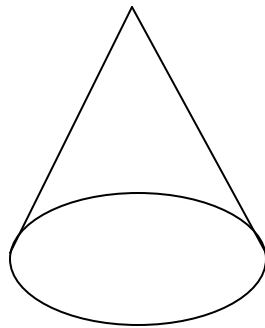


Volume of Basic Figures

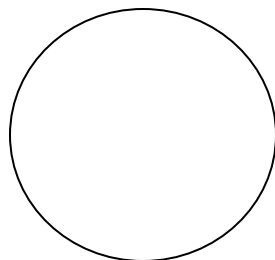
7. Find the volume of the cylinder. Height = 7.2 cm, diameter = 3.8 cm.



8. Find the volume of the cone. Height = 10 mm, radius = 5 mm.



9. Find the volume of the sphere. Radius = 2.8 mm.



Area of Regular Polygons

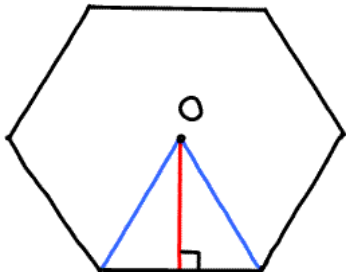
10. What is a regular polygon?
11. The perpendicular distance from the center of a regular polygon to the side is called the _____.
12. What is the formula to find the area of a regular polygon?
13. Find the area of a regular polygon with the following description:

Length of side = $2\sqrt{3}$

Number of sides = 8

Length of apothem = $\sqrt{2}$

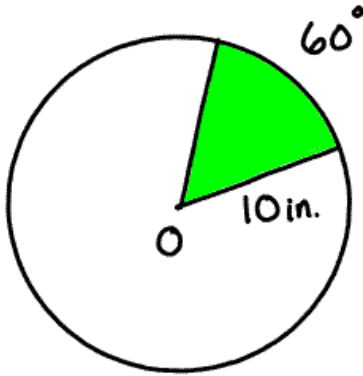
14. Find the area of the regular polygon.



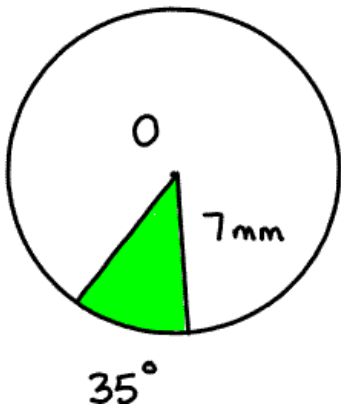
apothem = 6
radius = $4\sqrt{3}$

Area of Circles/Sectors and Arc Length

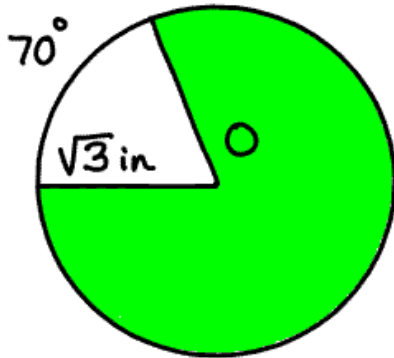
15. Define circumference and write two formulas that find the circumference of a circle.
16. A circle has an area of 114.9 cm^2 . What is the circumference of the circle?
17. Find the area and respective arc length for the shaded sector.



18. Find the area and respective arc length for the shaded sector.



19. Find the area and respective arc length for the shaded sector.



20. Explain how the value of π is calculated. Also is π a rational or irrational number?