Extra Practice on Polygons and Circles

Name: ______

Math 8IB

SHOW ALL OF YOUR WORK!

1. Find the area of a hexagon with an apothem of 5 cm and a side length of 4 cm.

2. Find the area of a decagon with an apothem of 8 cm and a side length of 6 cm.

3. The area of an octagon is 400 cm^2 and it has a side length of 10 cm. What is the measure of the apothem?

4. The area of a pentagon is 90 m² and its apothem measures 3 m. What is the measure of each side?

5. The area of a heptagon is 84 cm² and its apothem measures 4 cm. What is the perimeter of the hexagon?

6. What is the circumference of a circle with a diameter of 6 cm?

- 7. What is the circumference of a circle with a radius of 5 cm?
- 8. What is the area of a circle with a radius of 11 m?
- 9. What is the area of a circle with a diameter of 16 cm?
- 10. What is the area of a circle whose circumference is 12π cm?
- 11. What is the circumference of a circle whose area is $49\pi \ cm^2$?

- 12. What is the diameter of a circle whose area is $144\pi \ cm^2$?
- 13. What is the area of the sector with radius 5 cm and central angle of 30 degrees?

- 14. What is the sum of the angles in a icosagon?
- 15. Convert each of the following measures :
- a) 600 m = ____ km
- b) $2.56 \text{ dm} = ___ \text{dam}$
- c) $1.4 \text{ km}^2 = _ \text{cm}^2$
- d) $0.0000613 \text{ km}^2 = _ \text{cm}^2$
- e) $56932 \text{ cm}^2 = ____m^2$
- 16. A sector has an area of $3\pi \ cm^2$ and a central angle of 30 degrees. What is the measure of the radius?

17. Find the area of each shaded region:



Big circle has a radius of 16 cm

b)



c) Diameter of 12 cm



d) omit

Radius = 6 fte)



Diameter of small circle = 8 cmf)

