## Extra Practice on Polygons and Circles

Name: $\qquad$

## 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 $400 \mathrm{~cm}^{2}$ and it has a side length of 10 cm . What is the measure of the apothem?
4. The area of a pentagon is $90 \mathrm{~m}^{2}$ and its apothem measures 3 m . What is the measure of each side?
5. The area of a heptagon is $84 \mathrm{~cm}^{2}$ 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 $12 \pi \mathrm{~cm}$ ?
11. What is the circumference of a circle whose area is $49 \pi \mathrm{~cm}^{2}$ ?
12. What is the diameter of a circle whose area is $144 \pi \mathrm{~cm}^{2}$ ?
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) $600 \mathrm{~m}=$ $\qquad$ km
b) $\quad 2.56 \mathrm{dm}=$ $\qquad$ dam
c) $\quad 1.4 \mathrm{~km}^{2}=$ $\qquad$ $\mathrm{cm}^{2}$
d) $\quad 0.0000613 \mathrm{~km}^{2}=$ $\qquad$ $\mathrm{cm}^{2}$
e) $\quad 56932 \mathrm{~cm}^{2}=$ $\qquad$ $\mathrm{m}^{2}$
16. A sector has an area of $3 \pi \mathrm{~cm}^{2}$ and a central angle of 30 degrees.. What is the measure of the radius?
17. Find the area of each shaded region:
a)

b) Big circle has a radius of 16 cm

d) omit

f) Diameter of small circle $=8 \mathrm{~cm}$

