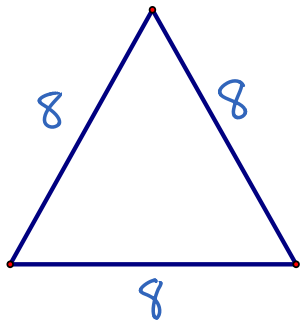


Geometry G - Block
10.2 Homework

Name Key

Find the exact area for each figure.

1. Equilateral triangle with side length of 8.

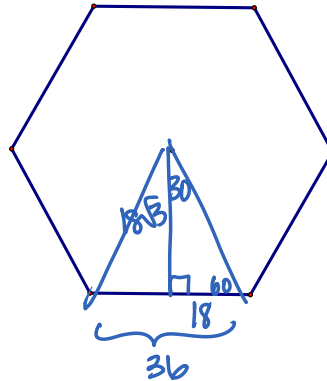


$$\frac{8^2\sqrt{3}}{4}$$

$$\frac{64\sqrt{3}}{4}$$

$$16\sqrt{3}$$

2. Regular hexagon with apothem of $18\sqrt{3}$

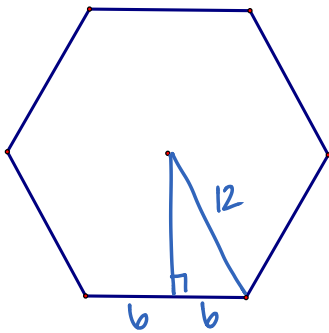


$$\frac{36^2\sqrt{3}}{4} \times 6$$

$$324\sqrt{3} \times 6$$

$$1944\sqrt{3}$$

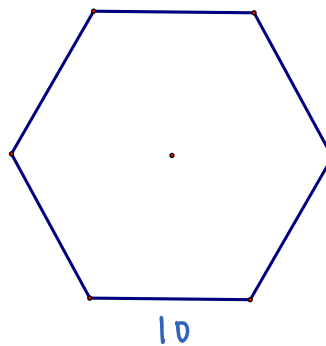
3. Regular hexagon with radius of 12.



$$\frac{12^2\sqrt{3}}{4} \times 6$$

$$216\sqrt{3}$$

4. Regular hexagon with side length of 10.



$$\frac{10^2\sqrt{3}}{4} \times 6$$

$$25\sqrt{3} \times 6$$

$$150\sqrt{3}$$

Now... go to Page 691 in your textbook. Do these problems:
#4, 10, 11, 12, 34, 36, 37

4. $A = 36\pi$
 $36\pi = \pi r^2$
 $r = 6$

$C = 2\pi r$
 $2 \cdot \pi \cdot 6$
 12π

10. $r = 7$
 $A = \pi r^2$
 $= 49\pi$

11. $d=5$
 $r=2.5$
 $C=2\pi r$
 $=2 \cdot \pi \cdot 2.5$
 $\boxed{5\pi}$

12. $C=10\pi$
 $10\pi=2\pi r$
 $10=2r$
 $r=5$
 $d=10$

34. $d=6$
 $r=3$
 $A=9\pi$
 $C=6\pi$

36. $r=17$
 $d=34$
 $A=289\pi$
 $C=34\pi$

37. $C=36\pi$
 $2\pi r=36\pi$
 $2r=36$
 $\boxed{18=r}$
 $A=18^2\pi$
 $\boxed{324\pi}$
 $\boxed{d=36}$