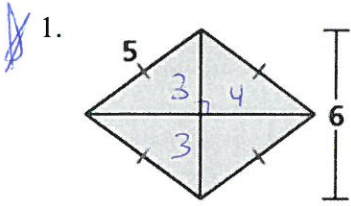


AK

Name: _____

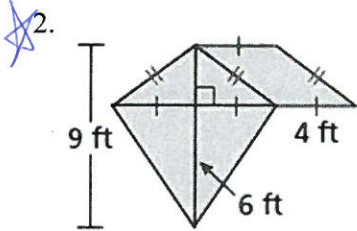
Period: _____

11.5 Practice Problems



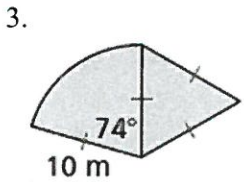
$$4\left(\frac{1}{2} \cdot 4 \cdot 3\right)$$

$$(24) u^2$$



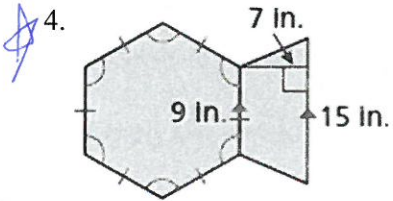
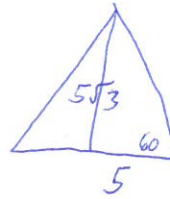
$$2\left(\frac{1}{2} \cdot 9 \cdot 4\right) + 4 \cdot 3$$

$$(48) u^2$$



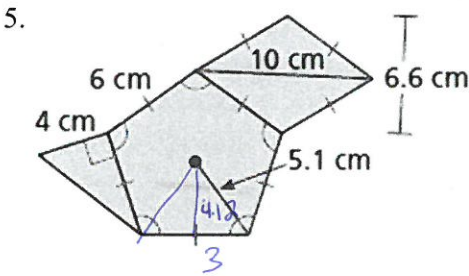
$$\frac{74}{360} \cdot \pi \cdot 10^2 + \frac{1}{2} \cdot 10 \cdot (5\sqrt{3})$$

$$(107.8) u^2$$



$$\frac{1}{2}(9+15)(7) + 6\left(\frac{1}{2} \cdot 9 \cdot 4.5\sqrt{3}\right)$$

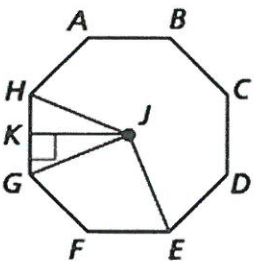
$$(294.4) u^2$$



$$\frac{1}{2} \cdot 4(6) + \frac{1}{2} \cdot 6(4.12)(5) + \frac{1}{2} \cdot 10(6.6)$$

$$(106.8) u^2$$

6. Given the octagon below, find:



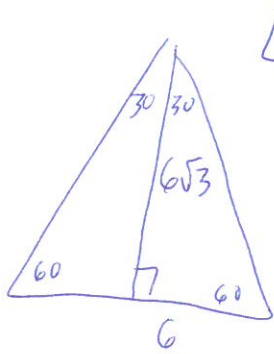
$$m\angle GJH = 45^\circ$$

$$m\angle GJK = 22.5^\circ$$

$$m\angle KGJ = 67.5^\circ$$

$$m\angle EJH = 135^\circ$$

7. Find the area of an equilateral triangle with side length 12. Then find the area of a regular hexagon with side length 12.



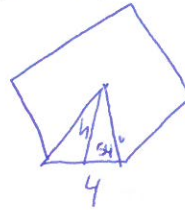
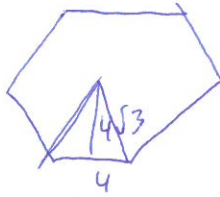
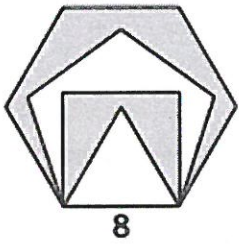
$$\frac{1}{2} \cdot 12 \cdot 6\sqrt{3}$$

$$\underline{36\sqrt{3}}$$

$$6 \left(\frac{1}{2} \cdot 12 \cdot 6\sqrt{3} \right)$$

$$\underline{216\sqrt{3}}$$

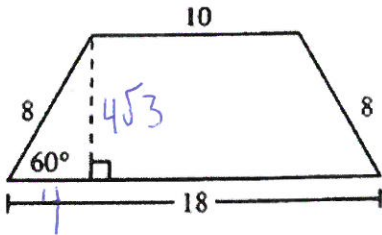
8. Find the area of the shaded region given each polygon is regular in the figure below.



$$h = \tan(54^\circ) \cdot 4 = 5.5$$

$$6 \left(\frac{1}{2} \cdot 8 \cdot 4\sqrt{3} \right) - 5 \left(\frac{1}{2} \cdot 8 \cdot 5.5 \right) + 8^2 - \frac{1}{2} (8)(4\sqrt{3}) = \underline{92.6}$$

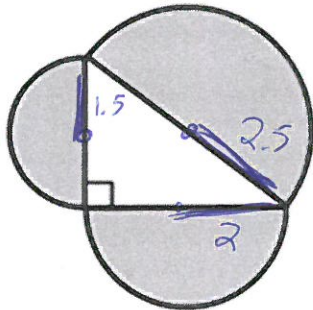
9. Find the area of the trapezoid.



$$\frac{1}{2} (10 + 18) 4\sqrt{3}$$

$$\underline{56\sqrt{3} \text{ u}^2}$$

10. The right triangle below has legs with lengths 3 and 4. Find the area of the shaded region.



$$\pi 1.5^2 + \pi 2^2 + \pi 2.5^2$$

$$2.25\pi + 4\pi + 6.25\pi$$

$$\underline{12.5\pi \text{ u}^2}$$