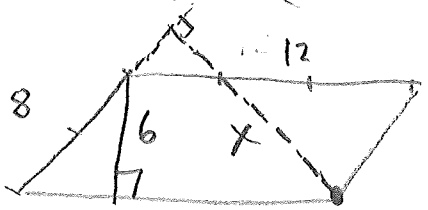
Sheet 11.8.1: SOLUTION KEY

CHAPTER 11 Review P. 470 1–15 odd.

1. $P = 32 \quad s = \frac{32}{4} = 8 \quad A = s^2$ **$A = 64$**

3. $A = s^2 \quad A = (3\sqrt{2}\text{ cm})^2$ **$A = 18\text{ cm}^2$**

5. 

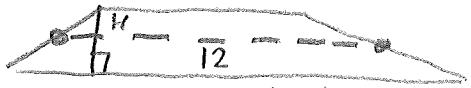
$A = 6 \cdot 12 = 72$

or

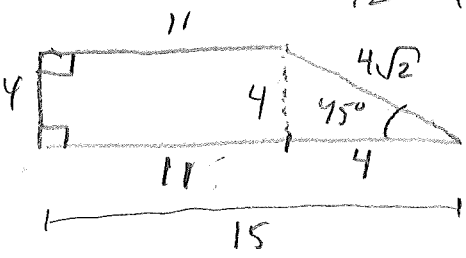
$A = 8x$

$8x = 72$

$x = 9$

7. 

$A = \text{MEDIAN} \cdot \text{HEIGHT} \qquad 84 = 12H \qquad H = \frac{84}{12}$ **$H = 7$**

9. 

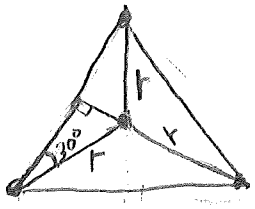
$A = \frac{11+15}{2} \cdot H$

$A = 13 \cdot 4$

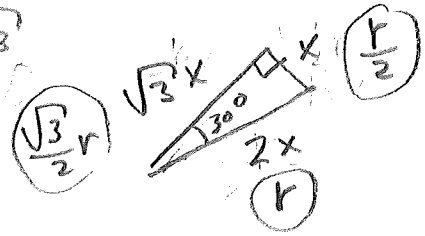
$A = 52$

$P = 11 + 4 + 15 + 4\sqrt{2}$

$P = 30 + 4\sqrt{2}$

11. 

$r = 2\sqrt{3}$



$H = r + \frac{r}{2} = \frac{3r}{2} = 3\sqrt{3}$

$b = 2\left(\frac{\sqrt{3}}{2}r\right) = \sqrt{3}r = 6$

$A = \frac{1}{2}b \cdot H = \frac{1}{2}(6)(3\sqrt{3})$

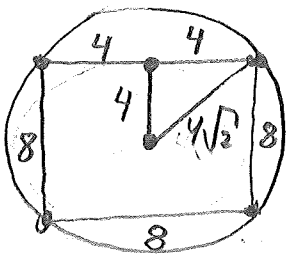
$A = 9\sqrt{3}$

13. $C = 2\pi r = 2\pi(30) = 60\pi \approx 60 \cdot 3.14$

$C \approx 188.4$ (188.50)

$A = \pi r^2 = \pi(30)^2 = 900\pi \approx 900 \cdot 3.14$

$A \approx 2826$ (2827.4)

15. 

$4^2 + 4^2 = R^2$

$32 = R^2$

$A = \pi R^2$

$A = 32\pi$

$A \approx 100.5$

$C = 2\pi R$

$C = 2\pi\sqrt{32}$

$C = 8\sqrt{2}\pi$

$C \approx 35.54$

15. See above right.