11.4

(1) $2a^2 = (8\sqrt{2})^2$

$2a^2 = 64 \cdot 2$

$a = 8$

$A = \frac{1}{2}(8 \cdot (16 \cdot 4))$

$= 256$

(2) $P = (5 \cdot 2) \cdot 4 = 40$

$r^2 = 2(5^2)$

$r = \sqrt{50} = 5\sqrt{2}$

$A = \frac{1}{2}(5 \cdot 2) \cdot 4 \cdot 5$

$A = 100$

(3) $49 = S^2$

$7 = S$

$a = \frac{7}{2}$

$r^2 = 2\left(\frac{7}{2}\right)^2$

$r = \sqrt{\frac{98}{4}} = \frac{\sqrt{98}}{2} = \frac{7\sqrt{2}}{2}$

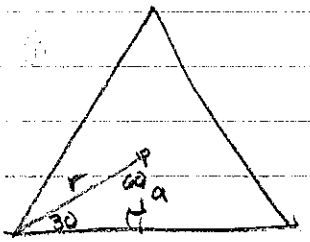
(4) $r^2 = \sqrt{6}^2 + \sqrt{6}^2$

$r = \sqrt{12} = 2\sqrt{3}$

$A = \frac{1}{2}\sqrt{6} \cdot 4(2\sqrt{6})$

$A = 24$

(5)



$r = 6 \rightarrow a = 3$

$\frac{1}{2}S = 3\sqrt{3} \rightarrow S = 6\sqrt{3}$

$A = \frac{1}{2} \cdot 3 \cdot 18\sqrt{3} = P$

$A = 27\sqrt{3}$

(6) $r = 8$

$\frac{1}{2}S = 4\sqrt{3} \rightarrow S = 8\sqrt{3} \rightarrow P = 24\sqrt{3}$

$A = \frac{1}{2} \cdot 4 \cdot 24\sqrt{3}$

$A = 48\sqrt{3}$

(7) $P = 12 \rightarrow S = 4 \rightarrow \frac{1}{2}S = 2$

$a = \frac{2\sqrt{3}}{3}$

$r = \frac{4\sqrt{3}}{3}$

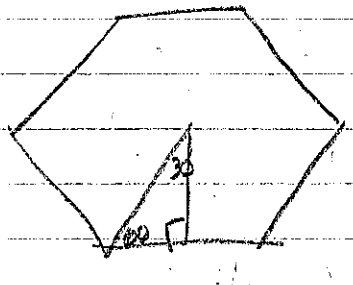
$A = \frac{1}{2} \cdot \frac{2\sqrt{3}}{3} \cdot 12$

$A = \frac{12\sqrt{3}}{3} = 4\sqrt{3}$

(8) $P = 9\sqrt{3} \rightarrow S = 3\sqrt{3} \rightarrow \frac{1}{2}S = \frac{3\sqrt{3}}{2}$

$a = \frac{3\sqrt{3}}{2\sqrt{3}} = \frac{3}{2}$

$r = 3$ $A = \frac{1}{2} \cdot \frac{3}{2} \cdot 9\sqrt{3} = \frac{27\sqrt{3}}{4}$

(9) 

$r = 4 \to \frac{1}{2}S = 2 \to S = 4 \to P = \boxed{24}$

$a = \boxed{2\sqrt{3}}$

$A = \frac{1}{2} \cdot 2\sqrt{3} \cdot 24 \to \boxed{24\sqrt{3}}$

(10) $a = 5\sqrt{3} \to \frac{1}{2}S = 15 \to S = 10 \to P = \boxed{60}$

$r = \boxed{10}$

$A = \frac{1}{2} \cdot 5\sqrt{3} \cdot 60 \to \boxed{150\sqrt{3}}$

(11) $a = 6 \to \frac{1}{2}S = \frac{6\sqrt{3}}{2} = 2\sqrt{3} \to r = \boxed{4\sqrt{3}}$

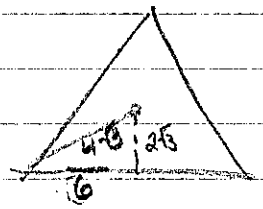
$S = 4\sqrt{3} \to P = \boxed{24\sqrt{3}}$

$A = \frac{1}{2} \cdot 6 \cdot 24\sqrt{3} = \boxed{72\sqrt{3}}$

(12) $P = 12\sqrt{3} \to S = 2\sqrt{3} \to \frac{1}{2}S = \sqrt{3} \to a = \sqrt{3} \cdot \sqrt{3} = \boxed{3}$

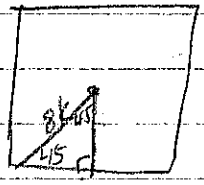
$r = \boxed{2\sqrt{3}}$

$A = \frac{1}{2} \cdot 3 \cdot 12\sqrt{3} = \boxed{18\sqrt{3}}$

(13) 

$S = 12 \to P = 36$

$A = \frac{1}{2} \cdot 2\sqrt{3} \cdot 36 = \boxed{36\sqrt{3}}$

(14) 

$a = \frac{8k}{\sqrt{2}} = \frac{8k\sqrt{2}}{2} = 4k\sqrt{2}$

$\frac{1}{2}S = 4k\sqrt{2} \to S = 8k\sqrt{2} \to P = 32k\sqrt{2}$

$A = \frac{1}{2} \cdot 4k\sqrt{2} \cdot 32k\sqrt{2} = 64k^2 \cdot 2 = \boxed{128k^2}$