41) Find the equation of the line tangent to the circle $x^2 + 8x + y^2 + 6y = 0$ at the point $(-1, 1)$.

a) $y = \frac{1}{4} - \frac{3x}{4}$ b) $y = x + 2$ c) $y = \frac{x}{2} + \frac{1}{4}$

d) $y = -x - 2$ e) $y = \frac{4x}{3} + \frac{7}{3}$ f) $y = -\frac{5x}{6} + \frac{1}{6}$

42) The first two of three consecutive multiples of 7 sum to 1897. What is the largest of these three numbers?

a) 98 b) 910 c) 91 d) 271 e) 980 f) 959

43) Find the value of the continued fraction

$$3 + \cfrac{1}{4 + \cfrac{1}{3 + \cfrac{1}{4 + \cdots}}}$$

a) $\frac{3}{2}$ b) $\frac{12 - \sqrt{192}}{8}$ c) $\frac{3}{2} + \sqrt{3}$ d) $\frac{3}{2} + \frac{\sqrt{6}}{2}$ e) $\frac{3}{2} + \frac{\sqrt{3}}{2}$ f) None of the above

44) Find the area of the region consisting of all the points in the plane that satisfy $1 \leq |x| + |y| \leq 2$.

a) 16 b) 10 c) 6 d) 2 e) 5.5 f) 8