(1) [8]   The altitude of a triangle is increasing at a rate of 1 cm/min while the area of the triangle is increasing at a rate of 2 cm^2/min. At what rate is the base of the triangle changing when the altitude is 10 cm and the area is 100 cm^2?

(2) [3] Determine $\lim\limits_{x \to 3^+} e^{2/(3-x)}$

(3) [4] Determine the linear approximation (or linearization) $L(x)$ of $f(x) = 1/\sqrt{2+x}$ at $a = 0$.