i want to evaluate the limit as x goes to x for ((radical 6-x)-2) divided by ((radical 3-x)-1) i would really appreciate it.

$$\lim_{x \to 2} \frac{\sqrt{6-x} - 2}{\sqrt{3-x} - 1}$$

Multiply the numerator and denominator by $\left(\sqrt{6-x} + 2\right)\left(\sqrt{3-x} + 1\right)$

$$\lim_{x \to 2} \frac{\left(\sqrt{6-x} - 2\right)\left(\sqrt{6-x} + 2\right)\left(\sqrt{3-x} + 1\right)}{\left(\sqrt{3-x} - 1\right)\left(\sqrt{6-x} + 2\right)\left(\sqrt{3-x} + 1\right)} = \lim_{x \to 2} \frac{(6 - x - 4)\left(\sqrt{3-x} + 1\right)}{(3 - x - 1)\left(\sqrt{6-x} + 2\right)} =$$

$$\lim_{x \to 2} \frac{(-x + 2)\left(\sqrt{3-x} + 1\right)}{(-x + 2)\left(\sqrt{6-x} + 2\right)} = \lim_{x \to 2} \frac{\left(\sqrt{3-x} + 1\right)}{\left(\sqrt{6-x} + 2\right)} = \frac{1 + 1}{2 + 2} = \frac{1}{2}$$