1. If three resistors with resistance $R_1$ and $R_2$ and $R_3$ are connected in parallel, then the total resistance is given by

$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}.$$ 

If $R_1$, $R_2$, $R_3$ are increasing at a rate of 1, 2, and 3 ohms per sec. respectively, how fast is $R$ changing when $R_1 = 1$ and $R_2 = 1/2$ and $R_3 = 1/3$