If we have that two resistors have a series resistance of 513 Ohms it means that if first resistor has resistance R_1 and second resistor has resistance R_2 then we will have an equation: $R_1 + R_2 = 513$.

If we have that the same resistors have a parallel resistance of 120 Ohms then we will have an equation:

$$\frac{R_1 R_2}{R_1 + R_2} = 120.$$

So, we have next system of equation:

$$\begin{cases} R_1 + R_2 = 513 \\ \dfrac{R_1 R_2}{R_1 + R_2} = 120 \end{cases}$$

And we will solve it:

$$\begin{cases} R_1 + R_2 = 513 \\ \dfrac{R_1 R_2}{R_1 + R_2} = 120 \end{cases} \Rightarrow \begin{cases} R_1 = 513 - R_2 \\ \dfrac{(513 - R_2) R_2}{513 - R_2 + R_2} = 120 \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} R_1 = 513 - R_2 \\ R_2^2 - 513 R_2 + 61560 = 0 \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} R_1 = 513 - R_2 \\ R_2 = \dfrac{513 \pm \sqrt{16929}}{2} \approx \dfrac{513 \pm 130}{2} = \{191.5, 321.5\} \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} \begin{cases} R_1 = 321.5 \\ R_2 = 191.5 \end{cases} \\ \begin{cases} R_1 = 191.5 \\ R_2 = 321.5 \end{cases} \end{cases}$$

In total we can say that one resistor is nearly 191.5 Ohms and the other is 321.5 Ohms.

Answer: one resistor is 191.5 Ohms, another is 321.5 Ohms.