3. Using the flood frequency curve for Holly Creek, **find the recurrence intervals (RI) for the following discharges** and **convert them to probabilities in Tab. 4**

Discharge	P (Decimal)	P (Percentage)	RI (years)
10000			
7500			
900			

Tab. 4:

Part D: Case study

1. You own a warehouse near the Anton river. Your business is protected for up to 900 flow units. At 900 flow units there would be major damage.

Based on a 30–year record, the annual series plot shows that 80,000 flow units has a _____ return period. (Use Fig.1 to choose the best answer.)

2. Recently, more flow data was discovered that extends the period of record back another 30 years for a total of 60 years. The newly discovered data indicate that higher flows with major flood events were more common than the original 30–year dataset suggests. What would you expect the new graph of flow versus return period to look like compared to the original? Draw a sketch in Fig 1
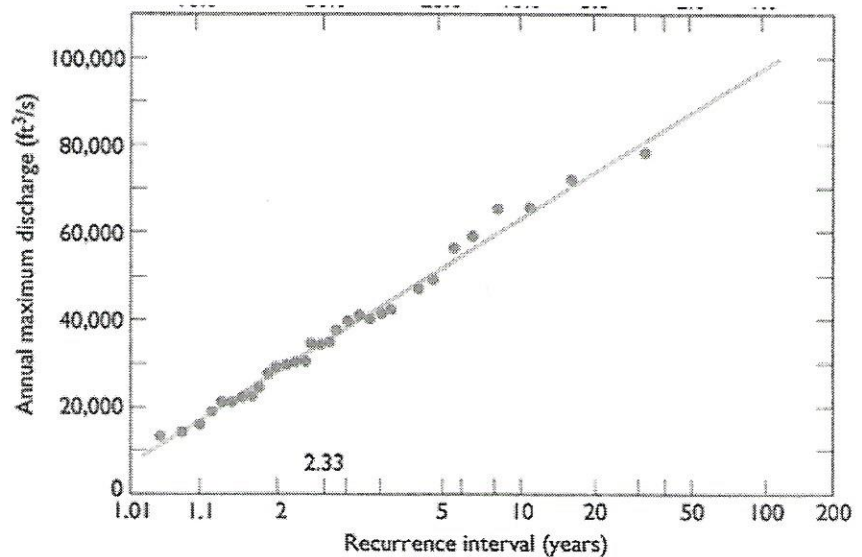

Fig. 1: Flood recurrence interval (RI) for Anton River