Name: ENGR-395-

Date: Time:

Data and results sheet:

Specimen type: .....

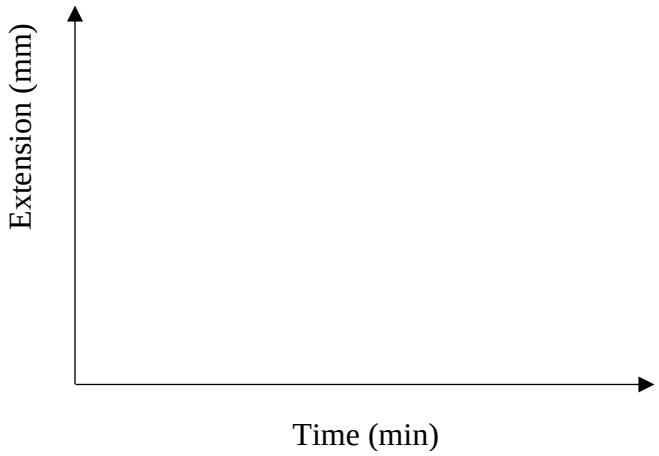
Table 1: Specimen specifications

Original gauge length L_g (mm)	
Final gauge length L_g (mm)	
Gauge width W_g (mm)	
Gauge thickness T_g (mm)	
Sample cross section area (mm^2)	
Mass added to the hanger (g)	
Tensile force ($F = (2.84 + 8\ m)\ g$) (N)	
Stress (N/mm^2)	
Ambient temperature (°C)	

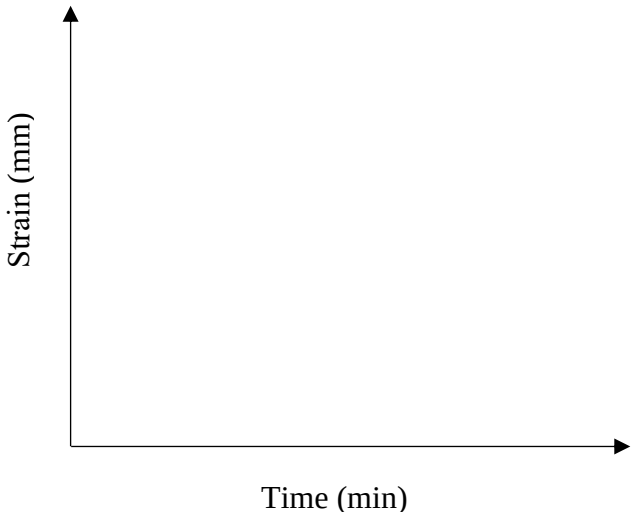
Time elapse (min : sec)	Extension (0.01 mm)	Strain	Time elapse (min : sec)	Extension (0.01 mm)	Strain
00 : 00			16 : 00		
00 : 30			16 : 30		
01 : 00			17 : 00		
01: 30			17: 30		
02 : 00			18 : 00		
02 : 30			18 : 30		
03 : 00			19 : 00		
03 : 30			19 : 30		
04 : 00			20 : 00		
04: 30			20: 30		
05 : 00			21 : 00		
05 : 30			21 : 30		
06 : 00			22 : 00		
06 : 30			22 : 30		
07 : 00			23 : 00		
07: 30			23 : 30		
08 : 00			24 : 00		
08 : 30			24 : 30		
09 : 00			25 : 00		
09 : 30			25 : 30		
10 : 00			26 : 00		
10 : 30			26 : 30		
11 : 00			27 : 00		
11 : 30			27 : 30		
12 : 00			28 : 00		
12 : 30			28 : 30		
13 : 00			29 : 00		
13 : 30			29 : 30		
14 : 00			30 : 00		
14 : 30			30 : 30		
15 : 00			31 : 00		
15 : 30			31 : 30		

Note: * Extension = (DIT reading)/2.
Note: * Strain = extension / original length

- Plot the extension vs. time curve.



- Plot the strain vs. time curve. Use the correct gauge length of the specimen when calculating strains. (Recall that strain is defined as the extension per unit length).



Questions:

1. Does the experimental strain vs. time curve exhibit the three regions of a typical creep curve?

2. What are the characteristics of each region? Why is the *secondary creep rate* so important for engineering design?