Chapter 2 - One-Way ANOVA

- 2.1 – [**5 pts**]
  1. Table below

Source	df	SS	MS	F	p-value
Among Groups	**7**	**35819**	**5117**	**3.5**	**0.0099**
Within Groups	24	35088	**1462**		
Total	31	70907			

  2. Groups = 7+1 = 8
  3. Individuals = 31+1 = 32
  4. $s_p^s = MS_{within} = 1462$
  5. $s^2 = MS_{total} = \frac{70907}{31} = 2287.3$
  6. Yes, p-value is less than 0.05

- 2.2 – [**5 pts**]
  1. Table below

Source	df	SS	MS	F	p-value
Among Groups	**3**	17.25	**5.75**	1.26	**0.3149**
Within Groups	**20**	**91.20**	4.56		
Total	23	70907	**108.45**		

  2. Groups = 3+1 = 4
  3. Individuals = 23+1 = 24
  4. $s_p^s = MS_{within} = 4.56$
  5. $s^2 = MS_{total} = \frac{108.45}{23} = 4.72$
  6. No, p-value is greater than 0.05

- 2.3 – [**3 pts**]
  1. Table below

Source	df	SS	MS	F	p-value
Among Groups	5	887.05	177.41	5.25	0.0006
Within Groups	48	1621.44	33.78		
Total	53	2508.49	*47.33*		

  2. Yes, p-value is less than 0.05.