

# MTH 3220 Lab 5 Answer Sheet

Due Thu., Oct. 10

## 1 Part A

### 1.1 Blood Coagulation Times Data Set (Cont'd from Lab 3)

1. NA
2. NA
3. NA (*don't* print the histogram).
4. *Don't* print the normal probability plot. Just answer the following question.

Based on the histogram and normal probability plot, does the normality assumption appear to be met?

5. *Don't* print the the plot of residuals vs fitted values. Just answer the following question.

Based on the plot, does the assumption of a constant standard deviation appear to be met?

## 2 Part B

### 2.1 Blood Coagulation Times Data Set (Cont'd)

1. For the pooled two-sample  $t$  test:

Test statistic value  $t =$  \_\_\_\_\_ Degrees of Freedom DF = \_\_\_\_\_

P-value = \_\_\_\_\_

State the conclusion of the  $t$  test (using  $\alpha = 0.05$ ): \_\_\_\_\_

2. For the ANOVA  $F$  test:

Test statistic value  $F =$  ..... Numerator DF = .....

P-value = ..... Denominator DF = .....

State the conclusion of the  $F$  test (using  $\alpha = 0.05$ ): .....

Compare the p-values for the  $t$  and  $F$  tests:.....

Compare the **square** of the  $t$  test statistic to the  $F$  test statistic:

$t^2 =$  .....  $F =$  .....