

Summer Assignment for Math SL-AA

The assignments below need to be completed **prior** to the start of the school year.

These assignments will be **collected** on the first day of class.

There will be a **test** on **all** of last year's material at the start of the school year.

You will be expected to **remember** and **apply** all of these concepts for Math SL

- **Do** the text book problems (below) and the extra problems (at the end).
- **Show** all work/set-up for every problem – NO WORK = NO CREDIT.
- **Label** the section and problem number
- This review will not be returned to you right away, if at all. Do not put work in a spiral notebook, unless you don't need it back.

Most of these problems come from the chapter reviews. Pay close attention to whether the problems are from Review A (non-calculator) or Review B (calculator). *You **must** show the set-up and all workings, regardless of whether you use a calculator or not.*

Chapter 1

Rev A pg.65 (2,3,4a,8b,9)
Rev B pg.66 (7)

Chapter 7

Rev pg.196 (1-3,7)

Chapter 2

Rev A pg.90 (1,6,7,8b,9)
Rev B pg.90 (5,6,9,12)

Chapter 8

Rev A pg.214 (4,6,7,9,10)
Rev B pg.215 (4,10)

Chapter 3

Rev A pg.116 (3,5,8,9)
Rev B pg.117 (6,8-10)

Chapter 9

9C.2 pg.228 (2)
Rev A pg.232 (5)
Rev B pg.233 (5)

Chapter 4

Rev A pg.140 (1,5,7,8,10)
Rev B pg.140 (2,5,6)

Chapter 12

Rev A pg.347 (4,9,18)
Rev B pg.349 (7,10)

Chapter 5

Rev A pg.151 (6)
Rev B pg.152 (6)

Chapter 14

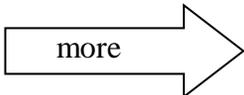
Rev A pg.414 (2,4,6)
Rev B pg.415 (4,5)

Chapter 6

Rev A pg.185 (1-6,8)
Rev B pg.186 (2,5,10)

Chapter 15

Rev A pg.457 (2,3,5)
Rev B pg.458 (1,2,6)

more 

Extra Problems:

1. Jill hangs her clothes out to dry every Saturday, and notices that the clothes dry more quickly some days than others. She investigates the relationship between the temperature and the time her clothes take to dry:

Temperature x ($^{\circ}\text{C}$)	25	32	27	39	35	24	30	36	29	35
Drying time y (min)	100	70	95	25	38	105	70	35	75	40

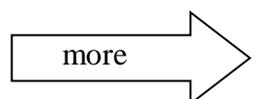
- Draw a scatter diagram for this data
 - Calculate the correlation coefficient, r (**with** a calculator)
 - Describe the correlation between temperature and drying time.
2. The table below shows how far a group of students live from school, and how long it takes them to travel there each day.

Distance from school x (km)	7.2	4.5	13	1.3	9.9	12.2	19.6	6.1	23.1
Time to travel to school y (min)	17	13	29	2	25	27	41	15	53

- Draw a scatter diagram
 - Use **technology** to find:
 - r
 - the equation of best fit (linear regression)
 - Pam lives 15km from school.
 - Estimate how long it takes Pam to travel to school.
 - Comment on the reliability of your estimate.
3. Ranji counts the number of bolts in several boxes and tabulates the data as follows:

Number of bolts	33	34	35	36	37	38	39	40
Frequency	1	5	7	13	12	8	0	1

- Find the five number summary for this data set
- Find the
 - range
 - IQR for this data set
- Draw a box plot of the data set
- Are there any outliers? (remember $1.5 \times IQR$)
- Verify parts a-d using technology



Answers to Extra Problems

1. b. $r \approx -0.987$
c. very strong, negative correlation

2. bi. $r \approx 0.993$
bii. $y \approx 2.16x + 1.42$
cii. $y \approx 2.16(15) + 1.42 \approx 33.8$
So, it will take Pam approximately 34 min. to travel to school
ciii. This estimate is an interpolation, and the correlation coefficient indicates a very strong correlation. This suggests that the estimate is reliable.

3. a.
min = 33
 $Q_1 = 35$
 $Q_2 = 36$
 $Q_3 = 37$
max = 40
bi. 7
bii. 2
d. no

