**PRECALCULUS MATH 11 – REVIEW MIDTERM (CH1-4) NOTES OUTLINE**

**CHAPTER 1 – SEQUENCES AND SERIES (formula sheet!)**

1.Arithmetic sequence

2.Arithmetic series

3.Geometric sequence

4.Geometric series

5.Infinite geometric series

**CHAPTER 2 – ABSOLUTE VALUES AND RADICALS**

1.absolute value

a. b.

2.simplify radical expressions

a. b. c.

3.add/subtract radicals

Like radicals-

1. b.

4.multiply/divide radicals

a. b. c.

5.solve radical equations(ALWAYS check)

a. b.

**CHAPTER 3 – SOLVE QUADRATIC EQUATIONS**

1.factor

a. b. c.

2.solve by factoring

a. b.

3.solve by square root

a. b.

4.quadratic formula (formula sheet)

5.Discriminant

**CHAPTER 4 – QUADRATIC FUNCTIONS**

1.vocabulary – y = a(x-p)2 +q

vertex

direction of opening

axis of symmetry

max/min

x intercepts

y intercept

domain

range

2.writing equations

a. axis of sym x=3, max is 2, thru point (-1,-6)

3. changing format (analyzing) – complete the square(ch3)

a. b.

4. Modelling - problem solving quadratics

a. A rectangular lot is bordered on one side by a building and the other 3 sides by 800m of fencing. Determine the area of the largest possible lot.