NAME:

**Lesson 1.2: Arithmetic Series**

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This assignment includes multiple choice and short answer questions. For multiple choice questions, select the best answer. Each is worth 1 mark. Marks assigned to short answer questions are indicated for each question. Be sure to show all necessary work.

**/1** 1. Determine the sum of the arithmetic series .

1. 16
2. 158
3. 908
4. 968

Answer:

**/1** 2. Determine the sum of the arithmetic series .

1. $-$1050
2. $-$1116
3. $-$2100
4. $-$2232

Answer:

**/1** 3. Determine the value of  for an arithmetic sequence, where and .

1. 106
2. 132
3. 136
4. 216

Answer:

1. Aron is training for a 10 km marathon swim in 18 weeks. Each week, his training plan includes a long distance swim. Over the first 6 weeks, Aron swam a total of 18.75 km. Over the first 10 weeks, Aron swam a total of 36.25 km. Each week, Aron increased the distance he swam following an arithmetic sequence until the final week.

**/2**  a. By what distance does Aron increase his total swimming each week?

Answer:

**/1**  b. Determine the distance Aron swam in the first week of training.

 Answer:

**/1**  c. Determine how far Aron swam over the 18-week training program.

 Answer:

**/1**  d. What assumption is made in order to answer part c.?

 Answer:

**/8**

You have completed *Lesson 1.2 Explore Your Understanding Assignment*. Please proceed to *Lesson 1.3.*