

# Sigma Notation: Answers

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## Summary

tbc

Q1:

1.1: 110 1.2: 65 1.3: 54 1.4: 225 1.5: 455 1.6: 8 1.7: 6j

Q2:

2.1 limit: 4 start: 1 rhs:  $3i$  2.2 limit: 4 start: 1 rhs:  $-i$  2.3 limit: 4 start: 0 rhs:  $3^i$  2.4 limit: 5 start: 1 rhs: 1 2.5 limit: 4 start: 1 rhs:  $(-1)^{i+1}6i$  2.6 limit: 4 start: 1 rhs:  $4i$  2.7 limit: 5 start: 1 rhs:  $5i$

Q3:

3.1  $2 * \{\text{limit: } n \text{ start: } 1 \text{ rhs: } i\}$  3.2  $4 * \{\text{limit: } n \text{ start: } 1 \text{ rhs: } i\}$  3.3  $12 * \{\text{limit: } 5 \text{ start: } 1 \text{ rhs: } i\}$  3.4 limit:  $n$  start: 1 rhs:  $i$

Q5:

5.1:  $2 \sum_{i=1}^n i^2 - \sum_{i=1}^n i - n$  5.2:  $\sum_{i=1}^n i^3 + 9 \sum_{i=1}^n i^2 + 18 \sum_{i=1}^n i$  5.3  $6 \sum_{i=1}^n i^3 - 7 \sum_{i=1}^n i^2 - 3 \sum_{i=1}^n i$