Answers: Introduction to sigma notation

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Summary

Answers to questions relating to the guide on introduction to sigma notation.

These are the answers to Questions: Introduction to sigma notation.

Please attempt the questions before reading these answers!

Q1

1.1. $\sum_{i=1}^{10} 2i = 110$

1.2. $\sum_{i=2}^{11} i = 65$

1.3. $\sum_{i=3}^{6} 3i = 54$

1.4. $\sum_{i=1}^{5} i^3 = 225$

1.5. $\sum_{i=2}^{6} 5i^2 = 455$

1.6. $\sum_{i=3}^{6} 2 = 8$

1.7. $\sum_{i=1}^{6} j = 6j$

Q2

2.1. $3 + 6 + 9 + 12 = \sum_{i=1}^{4} 3i$

2.2. $-1-2-3-4=\sum_{i=1}^{4}-i$

2.3. $0+3+9+27+81=\sum_{i=0}^{4}3^i$

2.4. $1+1+1+1+1=\sum_{i=1}^{5}1$

2.5. $6-12+18-24=\sum_{i=1}^{4}(-1)^{i+1}6i$

2.6. $8+16+12+4=\sum_{i=1}^{4}4i$

2.7. $25+20+15+10+5=\sum_{i=1}^{5}5i$

Q3

3.1. $\sum_{i=1}^{n}2i=2\sum_{i=1}^{n}i$

3.2. $\sum_{i=1}^{n}2i+\sum_{j=1}^{n}2i=4\sum_{i=1}^{n}i$

3.3. $\sum_{i=0}^{n}4i+\sum_{i=1}^{n}2i=6\sum_{i=1}^{n}i$

3.4. $\sum_{i=2}^{n}2i-\sum_{i=1}^{n}i=-1+\sum_{i=2}^{n}i$

Version history and licensing

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