

MAT 1228 Appendix E

Homework: 1-19 odd, 41

Supplemental Homework:

1. Rewrite the summation $\sum_{k=3}^6 \frac{1}{k^2}$ such that

- (a) the lower limit of the summation is 2
- (b) the lower limit of the summation is 1
- (c) the lower limit of the summation is 4

2. Rewrite the summation $\sum_{i=1}^n (i^2 + 3i + 4)$ such that

- (a) the lower limit of the summation is 0
- (b) the lower limit of the summation is 2

3. Rewrite the summation $\sum_{i=1}^n (i+1)(i+2)$ such that

- (a) the lower limit of the summation is 0
- (b) the lower limit of the summation is 2

Answers:

1. (a) $\sum_{k=2}^5 \frac{1}{(k+1)^2}$ (b) $\sum_{k=1}^4 \frac{1}{(k+2)^2}$ (c) $\sum_{k=4}^7 \frac{1}{(k-1)^2}$

2. (a) $\sum_{i=0}^{n-1} (i^2 + 5i + 8)$ (b) $\sum_{i=2}^{n+1} (i^2 + i + 2)$

3. (a) $\sum_{i=0}^{n-1} (i+2)(i+3)$ (b) $\sum_{i=2}^{n+1} (i)(i+1)$