

Calculus I

Name: _____

DLA Series 10

Class: _____

Due Date: _____

Score: _____

No Work $\Leftrightarrow$ No Points

Use Pencil Only $\Leftrightarrow$ Be Neat & Organized

1. (3 points) Use the formula $\sum_{i=1}^n c = cn$ to find $\sum_{i=1}^{50} 10$.

1. _____

2. (3 points) Use the formula $\sum_{i=1}^n i = \frac{n(n+1)}{2}$ to find $\sum_{i=1}^{50} i$.

2. _____

3. (4 points) Use the formula $\sum_{i=1}^n i^2 = \frac{n(n+1)(2n+1)}{6}$ to find $\sum_{i=1}^{25} i^2$.

3. _____

4. (4 points) Use the formula $\sum_{i=1}^n i^3 = \frac{n^2(n+1)^2}{4}$ to find $\sum_{i=1}^{20} i^3$.

4. _____

5. (4 points) Use the property $\sum_{i=1}^n cA_i = c \sum_{i=1}^n A_i$ to find $\sum_{i=1}^{20} 6i^2$.

5. _____

6. (6 points) Use the property $\sum_{i=1}^n (A_i + B_i) = \sum_{i=1}^n A_i + \sum_{i=1}^n B_i$ to find $\sum_{i=1}^{20} (3i^2 + 2i)$.

6. _____

7. (6 points) Use the property $\sum_{i=1}^n (A_i - B_i) = \sum_{i=1}^n A_i - \sum_{i=1}^n B_i$ to find $\sum_{i=1}^{20} (i^2(i - 6))$.

7. _____