Name: ─────────────────────────────   **ID**: ──────────────────

Complete the problems for 20 points. The scores will be recorded as Quiz11 and Quiz12 (10 pts each).

1. (3 points) Evaluate
$$\int 2x(x^2 + 5)\,\mathrm{d}x$$

2. (3 points) Calculate the integral
$$\int \cos(5t) + (t - 3)^2 \,\mathrm{d}t$$

3. (4 points) Compuate
$$\int_0^1 \frac{4x^3}{\sqrt[3]{x^4 + 1}}\,\mathrm{d}x$$

4. (6 points) Find the area of the region enclosed by the graphs of the equations $y = -x - 1$ and $y = -x^2 + x + 2$.

5. (4 points) Use the summation formula in the formula sheet to find the sum

$$\sum_{i=1}^{100} (4i - 1)$$

_____ / 20