Calc II First day problems

Here are a couple problems for group work that should help you get the mood for Calc II!

1. The graph of a function is shown in the figure below. Compute

$$\int_{-2}^{3} f(x) \, dx.$$

2. Evaluate
$$\int_0^3 |x-1| \, dx$$

3. Evaluate
$$\int_0^\pi \sin(3x) \, dx$$

4. Explain why
$$\int_{-1}^1 \sin(x^3) \, dx = 0$$
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