Fall 2024 MA 16200 Midterm 1 Answer Keys

1. B
2. A
3. D
4. E
5. D
6. E
7. A
8. A
9. D
10. A
11. $\dfrac{\sin(x)^3}{3} - \dfrac{\sin(x)^5}{5}$
12. (a) $\displaystyle\int_1^3 \pi\left(4^2 - (y+1)^2\right) dy$

    (b) $\displaystyle\int_1^3 2\pi(x+1)(x-1)\, dx$

    (c) $\dfrac{40\pi}{3}$