

AP Calculus AB - Average Value, Area and Volume - Quiz

Common Core AP CALC AB 8.1, AP CALC AB 8.2, AP CALC AB 8.3, AP CALC AB 8.4, AP CALC AB 8.5, AP CALC AB 8.6, AP CALC AB 8.7, AP CALC AB 8.8, AP CALC AB 8.9, AP CALC AB 8.10, AP CALC AB 8.11, AP CALC AB 8.12 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Test yourself on average value, motion with integrals, area between curves, volumes with cross sections and discs and washers with 10 multiple-choice questions. Pick one answer for each question, then read the explanation to see why it is right and which common mistake the other choices represent.

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Remember

- Average value = $(1/(b - a))$ times the integral of f over $[a, b]$.
- Displacement is the integral of v ; total distance is the integral of $|v|$.
- Area between curves = integral of (upper - lower); split the interval at every crossing.
- Volume by cross sections = integral of $A(x)$; disc method = π times the integral of (radius squared); washers subtract the inner radius squared.