

CALCULUS III: FINAL EXAM PROBLEM COLLECTION: VERSION A AND DIFFERENT ANSWERS

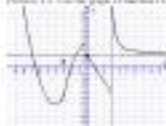
FOR MATH 1200 (MATH 1200) (MATH 1200) (MATH 1200)

CONTENTS

1. Limits and Continuity	1
2. Integration	2
3. Vector Algebra, Approximation and Differentiation	3
4. Polar and Spherical Coordinates	4
5. Green's Theorem	5
6. Stokes' Theorem	6
7. Gauss's Theorem	7
8. Optimization	8
9. Miscellaneous Questions	9
10. Answers	10

1. Limits and Continuity

Problem 1.1. Consider the graph of function f to the right.



(1) $\lim_{x \rightarrow 0^-} f(x) = 10$

(2) $\lim_{x \rightarrow 0^-} f(x) = -5$

(3) $\lim_{x \rightarrow 0^-} f(x) = 0$

(4) $\lim_{x \rightarrow 0^-} f(x) = -10$

(5) $\lim_{x \rightarrow 0^-} f(x) = 5$

(6) $\lim_{x \rightarrow 0^-} f(x) = -10$

(7) $\lim_{x \rightarrow 0^-} f(x) = 10$

(8) $\lim_{x \rightarrow 0^+} f(x) = 10$

(9) $\lim_{x \rightarrow 0^+} f(x) = -5$

(10) $\lim_{x \rightarrow 0^+} f(x) = 0$

(11) $\lim_{x \rightarrow 0^+} f(x) = -10$

(12) $\lim_{x \rightarrow 0^+} f(x) = 5$

(13) $\lim_{x \rightarrow 0^+} f(x) = -10$

(14) $\lim_{x \rightarrow 0^+} f(x) = 10$