

HW Set 5

Section 3.2: 5(c)(d), 9(a)(b)(c), 17(b)(c), 18

Section 3.3: 4, 6, 9, 11, 13

Section 3.5: 1(c), 3(b), 6(b), 7

Find a branch of the multiple-valued function $(4 + z^2)^{1/2}$ that is analytic in the given domain D where

(a) $D = \mathbb{C} \setminus \{iy : |y| \geq 2\}$

(b) $D = \mathbb{C} \setminus \{iy : |y| \leq 2\}$.