

MATH 311 Homework

Due Monday, February 20, 2017

1. In honor of Black History Month, browse through several of the profiles on the following website. What and/or who do you find inspirational?
<http://www.mathematicallygiftedandblack.com/calendar.html>
2. Let $g: \mathbb{C} \rightarrow \mathbb{R}$ be defined as $g(a + bi) = \sqrt{a^2 + b^2}$.
 - a. What is the domain and codomain of g ?
 - b. What is the image/range of g ?
 - c. Is g injective?
 - d. Is g surjective?
3. The following playlist contains many examples of equivalence relations:
<https://www.youtube.com/playlist?list=PLXTMju8ZrPK02kcb5xkoTcqZaNQE8G5TN>
 - a. In Section 1.3, do problems #25b and 21.

If you are attending the LA/MS MAA Section conference at Millsaps College, you may write up your experience for extra credit. It should be typed and $\frac{1}{2}$ - 1 page.