We, the undersigned graduate students, faculty, and staff of the Brown math department, would like to state categorically that Black lives matter. We are horrified by the continued police and vigilante violence against Black people – in particular, the recent murders of Rayshard Brooks, George Floyd, Breonna Taylor, Tony McDade, and Ahmaud Arbery.

We acknowledge the difficult feelings of grief and anger that many are feeling as a consequence of these injustices, and express our solidarity with protests across the country.

It is a popular myth that the practice of mathematics is divorced from ethics. We reject this notion, and acknowledge that mathematics continues to be misused in ways that inflict great violence across the globe, particularly against already marginalized groups. As demonstrated in Cathy O'Neil's *Weapons of Math Destruction*, it too often lends a scientific veneer to biased algorithms, including in policing. A 2019 <u>non-partisan federal study</u> found that leading facial recognition algorithms perform well on white men, but significantly worse on other demographic groups, particularly people of color. A June 2020 <u>report</u> by the ACLU demonstrates how damaging these technologies are in the hands of police departments.

It is long past time to investigate the ways in which our department and the larger mathematical community fit into the structural racism and white privilege that pervade so many aspects of our society today. Examples of bias in mathematics abound. In one <u>NYU study</u>, researchers found that "consistent with stereotypes of race and academic abilities, both math and English teachers were more likely to perceive their class as too difficult for students of color compared to white students, even after controlling for standardized test scores, homework completion, and a host of other factors." Besides these unconscious biases, one does not have to look far for overt racism in mathematics and academia at large – see, for instance, the book Living Proof (Henrich, Lawrence, Pons, Taylor, eds), and the #BlackInTheIvory hashtag on Twitter.

There continue to be barriers to entry into our field for people of color. A 2005 survey published by the American Mathematical Society shows that as of 2005, only 1% of tenured faculty in PhD-granting math departments are Black. Now, 15 years later, the racial composition has not changed much: a 2019 New York Times profile of Black mathematician Edray Goins notes that fewer than 1% of doctorates in math are awarded to African-Americans, while there are perhaps a dozen Black mathematicians among the 2000 tenured faculty comprising the nation's top 50 departments. Some of this can be traced to the general failure of our society to provide an adequate public education in the K-12 years, but much of the responsibility also lies on the shoulders of undergraduate and graduate programs in mathematics.

As we look into our own practices as a mathematics department, we pledge the following actions:

-long term financial support for the Horizons seminar, which aims to foster conversations around diversity and inclusion in mathematics and to buoy the work of minoritized mathematicians;

-long term financial support for the Brown math circle, which engages students from local Providence public schools in after-school mathematical activities;

-the recruitment and retention of faculty and graduate students from historically underrepresented groups, particularly BIPOC (Black and Indigenous people of color);

-a commitment to inviting larger numbers of mathematicians from historically underrepresented groups to speak at our research seminars;

-a critical evaluation of our undergraduate curriculum, and new plans to address the lagging diversity within the mathematics major at Brown;

-a commitment to open-minded engagement by our faculty with further recommendations of its students and of the Math Department Diversity & Inclusion Committee, to be presented at faculty meetings.

We strive to better educate ourselves and to do the necessary work to make our department a more just and equitable one. We acknowledge that the above action items are only initial steps as part of what needs to be a much broader departmental anti-racist effort, if we are to begin dismantling the historical and persistent systems of oppression on which this country, university, and department have been built.

## Signed,

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