

MATH 1530 ABSTRACT ALGEBRA
PROBLEM SET 1, DUE TUESDAY JANUARY 31 1PM IN CLASS

1. Please tell me the following about yourself:
 - (a) Your name
 - (b) Your preferred gender pronouns. For example, mine are she/her/her.
 - (c) A hobby or activity you enjoy
 - (d) Anything else you'd like to tell me or ask me.

2. Read the following Scientific American article by Dweck linked here: <http://bit.ly/2fHIUYK>

In my own experience, I've felt that many people tend towards approaching mathematics with a fixed mindset rather than a growth mindset, much more so than other academic subjects like English or biology. I don't know why. I'm really curious to know what your own experiences are as a learner of mathematics and other subjects.

Do you think you have a growth mindset when it comes to learning math? What can one do to develop a growth mindset?

3. Prove that \mathbb{R}^2 , together with the binary operation $+$ given by

$$(x_1, y_1) + (x_2, y_2) = (x_1 + x_2, y_1 + y_2)$$

is a group.