

## 1 Reading

In *A T<sub>E</sub>Xas Style Introduction to Proofs*, read Section 5.1.

## 2 Response

Answers to these should be written down and turned in in class.

1. Reflexive, symmetric, and transitive relations are important notions that occur a lot. We'll see more examples over the next couple sections, so it's okay if you don't fully have their nuances yet. But we should start with the big questions: for each of these notions, make sure you have at least one example and a non-example. Can you find any examples or non-examples that are surprising, that push the boundary of how you understand the definition, or that you're unsure of?
2. Besides the ones in the book, can you come up with an example and a non-example of an equivalence relation? A surprising example or non-example?

## 3 Exercises

You should bring solutions to these to class and be prepared to present them.

1. Exercise 5.8
2. Exercise 5.9
3. Exercise 5.27
4. Exploration 5.39
5. Statement 5.41
6. Exercise 5.43

## 4 Homework Problems

Due Thursday, April 2nd

1. Exploration 5.29
2. Exploration 5.42
3. Statement 5.44
4. Statement 5.47