While routine homework remains crucial for developing students’ skills with computation and basic problem-solving, it is also important that some homework be designed to involve more sophisticated argumentation and writing. I will provide examples of small projects and challenging problems that I have assigned in both single- and multivariable calculus. There is a wealth of material already available; the key is to package the assignments so that they are engaging to students and demonstrate the intellectual heft of mathematics. (Received September 12, 2016)