**Directions**: For each of the following people, calculate their daily calorie needs, and make appropriate macronutrient ratio recommendations to help each person achieve their individual goals.

1. Liz is a 19 year old female college student. Liz is 5’4” and 128lbs and appears to be of medium build. She says, “I want to get in better shape, but really I just want to look better. I don’t want to be so flabby.” When asked about her current workout regimen, she says that she “runs on the treadmill almost every Tuesday and Thursday after class for about 30-45 minutes.”
2. Zane is a 22 year old college senior. He is 5’10” and 136lbs. After graduation Zane’s desire is to join the Army and become a helicopter pilot. Zane’s recruiter tells him that he is currently underweight, and must gain some weight in order to be a competitive candidate for flight school. Zane is working hard to prepare for boot camp by running and doing as many push-ups and sit-ups as possible. Zane is concerned because his workout regimen seems to be forcing him to lose more weight.
3. Andrew is 21 years old. Two years ago Jack was in a severe car accident and suffered severe injuries that left him paralyzed from the waist down. At the time of the accident, Andrew was in great physical shape. Standing at 5’9, he wrestled for his school at 165lbs, but always had to work twice has hard as everyone else to make weight. Because he has been unwilling to try working out since the accident, Andrew has gained 52lbs, and his family is getting more and more concerned for his health.