For each of the following questions, outline how you could use an A/B test to find an answer. Be sure to identify all five key components of an A/B test we outlined above (two versions, sample, hypothesis, outcome(s), other measured variables).

* Does a new supplement help people sleep better?
  + Take a group of willing participants, assign half of the group a placebo, and the other half a sleep supplement. The outcome would be predicting that the new supplement will in fact help people sleep better. Other measured variables could be the overall age of the groups, their professions/how much work they do, or how much sleep on average they got before the test.
* Will new uniforms help a gym's business?
  + The experiment will take about 2 weeks. On the first week have an old design on the staff who greet and sign people up, the second week will have staff in the new uniforms. The hypothesis being: will new uniforms cause customers to sign up for more services. Being that there may a different number of people who enter the gym, interact, and ultimately sign up for services, take a percentage. The ideal outcome is that there will be a significant increase in requests for services (membership, private sessions, class signups). Other factors to take into consideration would be if there are promotions going on, the condition of the gym itself (if it looks good during both weeks of testing), and which sales people are there.
* Will a new homepage improve my online exotic pet rental business?
  + The two version will be the original home page, and a new home page sent, both marketed to similar sized groups within certain demographics. The hypothesis is that the new homepage is more user friendly and will cause more clicks leading to rentals. The outcome to be achieved is more exotic pet rentals. Other variables to consider will be location, time of year (weather), large events that may be happening in the area where people want to see exotic animal on display.
* If I put 'please read' in the email subject will more people read my emails?
  + Take a group of regular subscribers and randomly split the group in half. One half will get a plain email, while the other half gets the same email with ‘please read’ in the subject. The goal is to get more clicks, and return emails with the ‘please read’ subject line. Things to consider will be time of day the email is sent, and what else is in the subject and contents (meeting, urgent matter, etc.).