**Independent samples t-test problems**

1. Work this first problem on your own and then watch the Youtube video to check your answers.

A psychologist hypothesizes that recent converts to Christianity will score, on average, higher than individuals who were raised as Christians on Allport’s Intrinsic Religious Orientation subscale. The subscale values can range from -16 to +16, with high values indicating an intrinsic religious orientation. The psychologist randomly samples 8 recent converts and 10 cradle Christians and administers the Religious Orientation scale. The data are reported below. Do they support the psychologist’s hypothesis? Use an alpha level of .05 and work through the steps in NHST to address the psychologist’s question.

Persons with an Intrinsic Religious Orientation sincerely believe in their religion and all its teachings and attempt to live their lives as their religion preaches that they should, whereas persons with an Extrinsic orientation go to religious gatherings and claim certain religious ideologies to establish or maintain social networks while minimally adhering to the teachings of the religion.

Christian Converts: 12, 10, 8, 9, 7, 5, 12, 10

Cradle Christians: 10, 4, -1, -2, 0, 5, 8, 4, 2, 7

Youtube Video: <https://www.youtube.com/watch?v=lF4W-4D99lI&feature=youtu.be>

1. Work this second problem on your own and then review the key to check your answers.

A psychologist hypothesizes that women will score, on average, higher than men on Allport’s Intrinsic Religious Orientation subscale. The subscale values can range from -16 to +16, with high values indicating an intrinsic religious orientation. The psychologist randomly samples 10 women and 10 men and administers the Religious Orientation scale. The data are reported below. Do they support the psychologist’s hypothesis? Use an alpha level of .05 and work through the steps in NHST to address the psychologist’s question.

Women: -2, -1, 1, 7, -7, -4, -10, 0, 0, -4

Men: -1, 5, 7, 2, 1, -1, 6, 8, 5, 4