14. This problem was inspired by the following true news story. “April 3, 2012: Bill Lesinski was visiting his downstairs neighbor at their home near O’Hare International Airport in Chicago when the neighbor’s dog, a pit bull named Monster, attacked him and bit off part of his nose.”

Bill including his nose weighs 41 times as much as his nose. Bill including his nose weighs 176 pounds more than Monster the pit bull. While spending some quality time together Monster bites off Bill’s nose and swallows it. After this bit of fun, Bill now weighs twice as much as Monster now weighs. Question: How much does Bill’s nose weigh?
(15 points)

Hint: Write down the three equations and solve them. The answer alone is worth no points.