

Name: _____
Date: _____
Class: _____

Algebra
Unit 2
HW 2-9

1) Find all numbers such that 7 less than twice the number is at least 15.

2) A stadium is filling with people. It holds at most 35,000 people. 750 of the seats are reserved for special guests. The remaining seats are filled as people enter the stadium. On average, 175 seats are filled each minute the gates are open. Write an inequality to model this situation and use it to determine at what minute the stadium will be full of people.

3) Solve:

A fish tank can hold at most 315 gallons of water.
If a hose is filling the fish tank at a rate of 15
gallons every 10 minutes, how many *hours* can
the hose be left on before the tank overflows?

4)

At an amusement park there's only enough room for 4500 people to be in it at any time. The manager has also worked out that there needs to be 2800 people in the park to make a profit after all the overhead costs and employee pay. If people are entering the park at a rate of 12 people a minute and there are 850 people in the park currently *between* how many minutes should the door stay open to let guests in?

(use a compound inequality)

5) Solve:

The sum of two consecutive even integers is at most seven more than half the sum of the next two consecutive even integers.