

## The Pig Problem

Suppose the weight of a pig is modelled as  $\frac{800}{1+3e^{-\frac{t}{30}}}$ , where  $t$  is time in days measured from now. It costs a farmer 45 cents per day to keep the pig. The market price for pigs is 65 cents per pound, but falling 1 cent per day.

When should the farmer sell the pig?