

ECON3120/4120 – Mathematics 2, fall term 06

Problems for seminar 5, 9/10-13/10.

- 1 L.A: 2.6.2. (EMEA: 15.9.2.)
- 2 The price vector is $(2, 3, 5)$ and you can afford the commodity vector $(10, 5, 8)$.
What is your budget constraint?
- 3 Exam problem 43.
- 4 Suppose $Y = Y(t)$ is national product, $C(t)$ is consumption at time t , and \bar{I} is investment, which is constant. Suppose $\dot{Y} = \alpha(C + \bar{I} - Y)$ and $C = aY + b$, where a , b , and α are constants with $0 < a < 1$.
 - (a) Derive a differential equation for Y .
 - (b) Find its solution with $Y(0) = Y_0$ is given.
- 5 Exam problem 111.