

ECON3120/4120 – Mathematics 2, fall term 07: **Problems for seminar 3, Sep. 24**

- 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 $0 < a < 1$. Derive a differential equation for Y . Find its solution with $Y(0) = Y_0$ is given.
- 5 Exam problem 111.