Chapter 2 Workouts: 2.1, 2.3, 2.5, 2.7, 2.9, 2.11

Chapter 3 Workouts: 3.1, 3.3, 3.5, 3.7, 3.13

Chapter 4 Problems.

Workouts:
4.1, 4.3, 4.5, 4.9

1. For each of the following utility functions, what is the MRS? Do any of these utility functions represent the same preferences?

A) $x_1 x_2$
B) $(2x_1)^3 x_2$
C) $(2x_1)^2 (2x_2)^2$
D) $\sqrt{x_1^2 + 3x_2}$
E) $ln\left[\left(2x_1^3\right)\left(2x_2^3\right)\right]$
F) $x_1 + x_1 x_2$

2. Sketch (roughly) a few indifference curves of the following utility functions:

A) $min\{x_1, x_2\}$
B) $(min\{x_1, x_2\})^2$
C) $max\{2x_1, x_2\}$
D) $x_1 + x_1 x_2$
E) $x_1^2 x_2^2$

Chapter 5 Problems.

Workouts:
5.1, 5.3, 5.5, 5.7

1. At prices $p_1 = 1$ and $p_2 = 2$ with income $m = 10$, what bundle of goods is optimal given the following utility functions:

A) $x_1 + 2x_2$
B) $x_1 x_2$
C) $x_1 + x_1 x_2$
D) $min\{x_1, x_2\}$
E) $min\{2x_1, x_2\}$