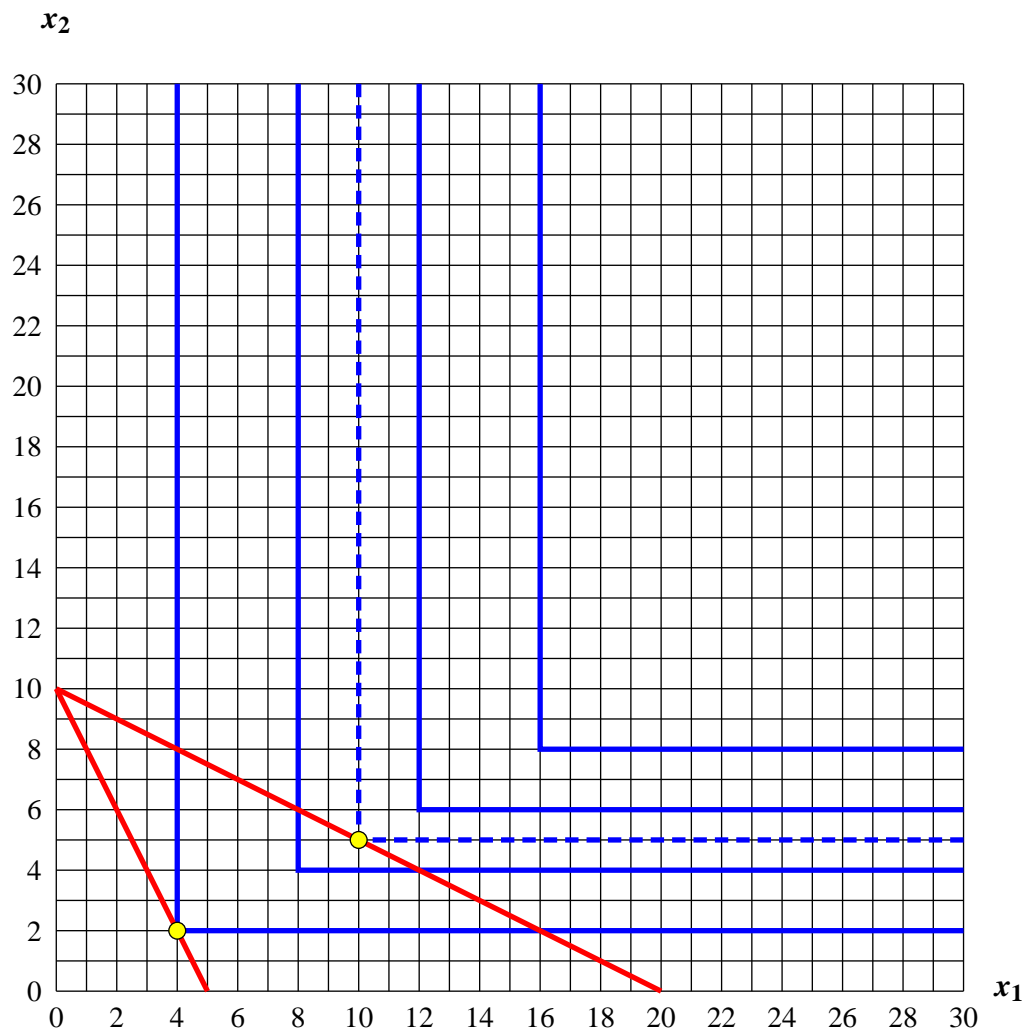


Question 1**(a)****books****(b)** Amy's budget line is given by

$$x_1 + 2.5x_2 = 20.$$

Question 2



Demand of good 1 decreases by 6 units.

Demand of good 2 decreases by 3 units.

Question 3 At the optimal choice $MRS = x_B^2/x_A^2 = 4$. Thus,

the equation of the income offer curve is $x_B = 2x_A$.

The equation of the budget line is $4x_A + x_B = 180$. Substitution yields $6x_A = 180$.

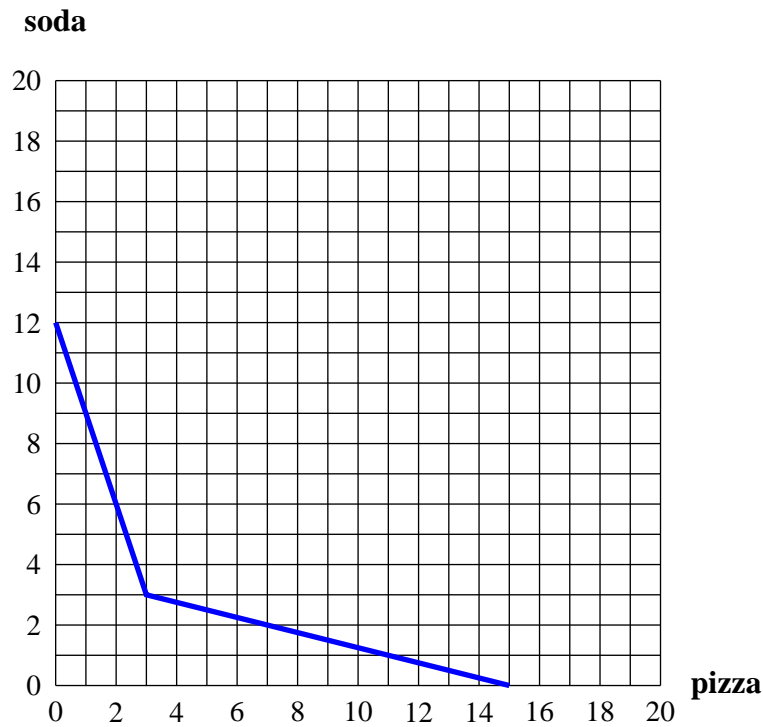
$x_A = 30, x_B = 60$.

Question 4 If steak is on the horizontal, and eggs on the vertical axis, then Mr. Yellowwhat's MRS is 6. Because he consumes a positive amount of each good $p_S/p_E = 6$. Thus, $p_S = 3$.

Then Mr. Yellowwhat's income is $I = 61$.

Question 5

(a)



- (b) She consumes

10 units of pizza and 10 units of soda.

Question 6

- (a) He consumes

3 units of chocolate, and 3 units of ice cream.

- (b) He consumes

7.5 units of chocolate, and 0 units of ice cream.

Question 7

- (a) The $MRS = 10/\sqrt{t}$. At the optimal choice $5 = \sqrt{t}$. Therefore

the optimal $t = 25$.

He spends 50 Dollars on long distance calls.

- (b) Now $10/\sqrt{t} = 1$. Thus,

the optimal $t = 100$.

He spends 110 Dollars on long distance calls.

- (c) His consumption under the first plan is (25, 150). His consumption under the second plan is (100, 90). $u(25, 150) = 250$, and $u(100, 90) = 290$.

His utility from plan (a) is 250.

His utility from plan (b) is 290.

As a consequence he prefers **plan (b)**

Question 8

