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Dr. Paullin and her husband Eric had no Trick-or-Treaters this year, so there is a lot of leftover Halloween treats in their house. They are trying to decide who gets to finish the treats, and place the following bids.

	Dr. P	Eric
<b>Goldfish</b>	2	5
<b>Cheese Puffs</b>	1	8
<b>Snickers</b>	5	4
<b>Milky Way</b>	8	2
<b>Caramel Apple</b>	6	3

Answer the following questions.

- (1) What is Dr. Paullin's fair share?
  
- (2) What is Eric's fair share?
  
- (3) Eric takes all the Goldfish, Cheese Puffs, and Snickers, and pays Dr. Paullin \$5, leaving Dr. Paullin with the Milky Way and the Caramel Apple.
  - (a) Find  $x_{Dr.P}$  and  $x_{Eric}$ .
  
  - (b) Is this compensation arrangement **fair**? Why or why not?
  
  - (c) Is this compensation arrangement **equitable**? Why or why not?
  
  - (d) Is this compensation arrangement **envy-free**? Why or why not?
  
  - (e) Is this compensation arrangement **Pareto-Optimal**? Why or why not?