Math 111 Contemporary Mathematics
Fall 2015
Lecturer: Dr. Paullin

Susie and Emma are preschoolers who recently got in a fight, declaring they will NEVER be friends again, and can't decide who should keep the My Little Ponies they had purchased together. Their piggy banks are small, but they place the following bids on the ponies.

|  | Susie | Emma |
| :---: | :---: | :---: |
| Twilight Sparkle | $\$ 1$ | $\$ 4$ |
| Rainbow Dash | $\$ 2$ | $\$ 3$ |
| Pinkie Pie | $\$ 5$ | $\$ 2$ |

(1) Equitability Procedure Use the Equitability Procedure and answer the following questions.

|  | Susie | Emma |  |
| :---: | :---: | :---: | :---: |
| Fair Share |  |  |  |
| Value of Item Received |  |  | Surplus $\downarrow$ |
| Money Received |  |  |  |

(a) Who gets to keep which ponies?
(b) What are $\mathbf{m}$ and $\mathbf{w}$ ?
(c) Using this method, what are $x_{\text {Susie }}$ and $x_{\text {Emma }}$ ?
(2) Perception Chart Use your results from the above Equitability Procedure problem, to fill in the Perception chart.

| View of Compensation | Susie | Emma |
| :---: | :---: | :---: |
| Susie views |  |  |
| Emma views |  |  |

(3) X/B Fractions Find the $\frac{x}{b}$ fractions for Susie and Emma.

