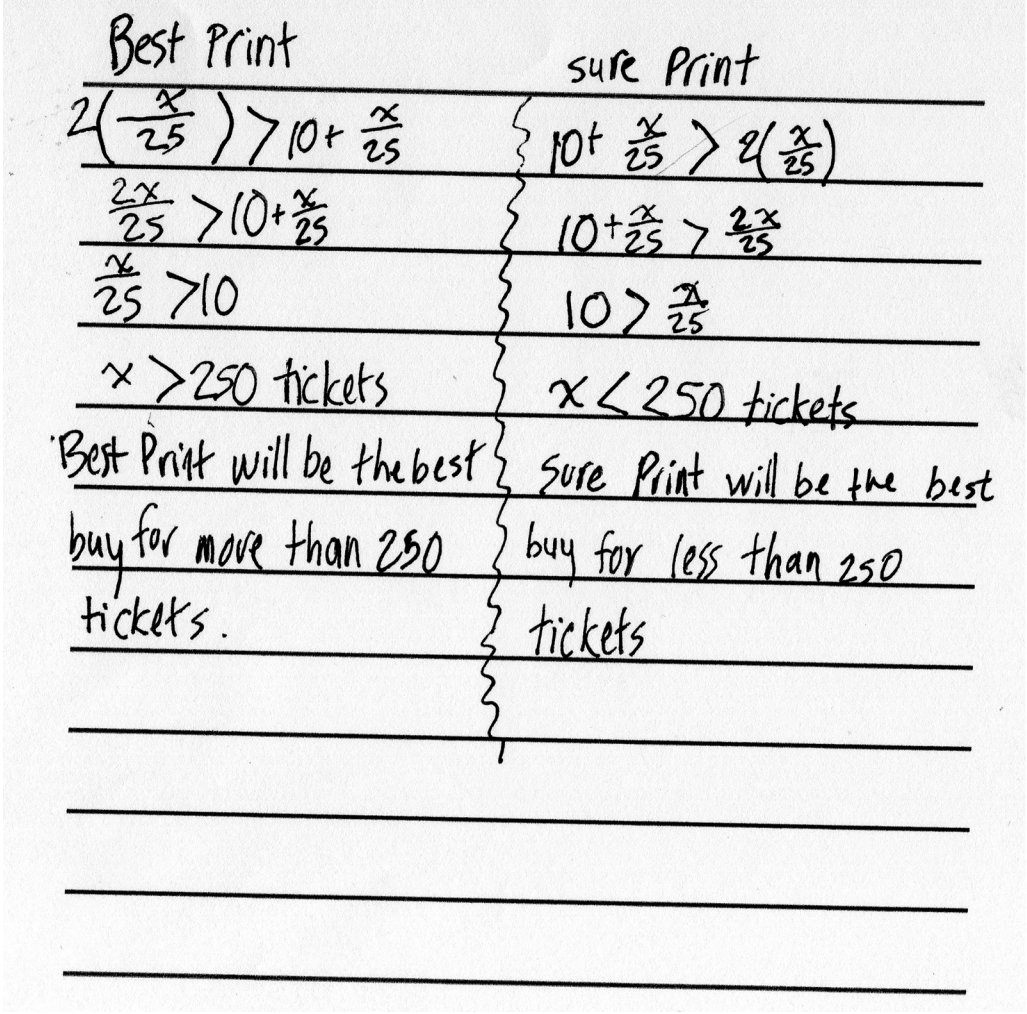
Ms. Hensley's algebra class is working on modeling with mathematics and creating equations to describe numbers and patterns. She has assigned her students the Best Buy Tickets problem to work on individually. As Ms. Hensley circulates through the room, she looks at the students' work and asks them to explain the process they are using. When Ms. Hensley finishes circulating through the room, she decides to have two volunteers share their methods with the class, though she does not know who she will choose yet. During this process, students in the class can ask the student who is presenting any questions they may have. Ms. Hensley is hoping to promote effective discourse throughout the presentations. The following are examples of some of the work Ms. Hensley observed and can choose from to present.

Sara's Work



Lena's Work

Sure Print

# of tickets	$ Sure Print	Best Print	unless you
25	2	11	are buying
50	4	12	250 tickets or
75	6	13	more sure Print
100	8	14	is cheaper.
125	10	15	

Timothy's Work

The rest of sure prints is represented by $2(\frac{x}{25})$. Best print is $10+\frac{x}{25}$.
for sureprint to cost less than best print, $(2)\frac{x}{25} < 10+\frac{x}{25} = 2x < 250+x$
$x < 250$. So if the # of people is less than 250, use sure print.
For Best Print to be the best choice, $10+\frac{x}{25} < 2\frac{x}{25} = 250+x < 2x = 250 < x$
$x > 250$. So # of people must be over 250 in order for Best print to be cheaper than sure print. So if less than 250 people go, use Sure Print, if more than 250 people go, use Best Paint.

Homer's Work

For the sure print, It costs 0.08 cents per person

The Best Print cost 0.04 cents per person,

plus a 10 dollar set up fee. assume the

number of people as x. when the printing

cost for both printers are the same, it

dosent matter what are to buy. So when $0.08x =$

$0.04x + 10$, I dosent matter where you buy

the tickets. $0.04x = 10$, $x = 250$, If there are

250 people buying, It dosen't matter which

Printer you use. If there are less than 250 people buying,

it is better to buy from sure print. If there

are more 250 people buying, it is better to

buy from Best Print

$$0.08x = 0.04x + 10$$

$$0.04x = 10$$

$$x = 250$$

→ In using this vignette with preservice teachers (PSTs), teacher educators found that PSTs often generalized about the best way to present the content in the problem rather than critically responding about the problem itself and the accompanying student thinking and work.