Name: _____   Date: _____

Think

Critique each answer in the empty table provided below. Explain what each student did and why it is correct or incorrect.

Anticipated Student Responses:

Talk Idea

Micah is right

- Opposite operations
- I solved it like that
- I put the number 16 in at it worked

Micah is wrong

- Plugged in numbers and it didn't work (ie 100)

Talk Idea

Jenny is right

- Plugged in 16 and it worked

Jenny is wrong

- She flipped the sign at the end
- She said 16 times instead of 16 times or less

Talk Idea

Patrick is right

- Plugged in 16 and it worked
- Plugged in 10 and it worked

Patrick is wrong

- Flipped the sign

We Understand

We understand that when we divide by a negative number in an inequality that we must switch the way of the sign. When the sign is less than or equal to, that means that it can either be the number and anything less than that number. When the sign is greater than or equal to (at most), that means that it can either be that number and anything bigger than that number.

Micah starts out with $100.00 from his birthday. He spends $3.00 every time he goes to Dunkin Donuts for breakfast/coffee/donuts. At the end of the month he wants to have at least $52.00 left so he can spend it at the mall. Using the inequality $100 - 3x \geq 52$ Micah, Jenny, and Patrick all solve this problem to find out how many times he can go to Dunkin Donuts in one month. <u>Critique</u> each answer in the empty table provided below. <u>Explain</u> what each student did and <u>why</u> it is correct or incorrect.

Micah	Jenny	Patrick
$100 - 3x \geq 52$ $-100 \qquad -100$ $-3x \geq -48$ $-\dfrac{3x}{3} \geq -\dfrac{48}{3}$ $x \geq 16$ Micah says that you can go to Dunkin Donuts at least 16 times. So he can got to Dunkin Donuts 16 times or more than 16 times.	$100 - 3x \geq 52$ $-100 \qquad -100$ $-3x \geq -48$ $-\dfrac{3x}{3} \geq -\dfrac{48}{3}$ $x \leq 16$ Jenny says you can go 16 times.	$100 - 3x \geq 52$ $-100 \qquad -100$ $-3x \geq -48$ $-\dfrac{3x}{3} \geq -\dfrac{48}{3}$ $x \leq 16$ Patrick says you can go at most 16 times. So Micah can go to Dunkin Donuts 16 times or less than 16 times.

Micah	Jenny	Patrick