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1. Wild west produces two types of cowboy hats. A type 1 hat requires three times as much labor time as a type 2. If the all available labor time dedicated to type 2 alone, the company can produce a total of 450 Type 2 hats a day. The market limits for the types are are 100 and 200 hats per day for Type 1 and Type 2 respectively. The profit is $8 per Type 1 hat and $5 per Type 2 hat. Determine the number of hats of each type that would maximize profit.

1) Let's say x is type 1 and y is type 2

type 1 = 3. type 2

$3xT + yT \leq 450T$

$3x + y \leq 450$

$x \leq 100$

$y \leq 200$

$8(100) + 5(200)$

$800 + 1500 = 2300$

1900

2)