Your Turn

2. Mrs. Johnson wants to buy her students treats to let them know how great they are. She needs to buy at least 95 treats to make sure each student gets 1. She will buy them either peanut m&m's which cost $2.50 each, or the nut-free option of sour skittles which are $4.00 each. She is buying the big bags, because her students are that great. She has a budget of $300 given to her by the school to buy treats. Write and graph (in **Desmos**) a system of inequalities the represent this situation.

$M + S >= 95$ mm and skittle number at least 95 candies

$M >= 95 - S$

$M >= -S + 95$ (y axis is number of m&m, x is number skittles)

$Y >= -S + 95$

$$2.5M + $4S <= 300 budget   divide by 2.5

$M + 1.6S <= 120$

$M <= 120 - 1.6 S$

$M <= -1.6S + 120$

$Y <= -1.6X + 120$

Graph Settings

1. $2.5y + 4x \leq 300$

2. $y + 1.6x \leq 120$

3. $y \leq 120 - 1.6x$

4. $2.50 m&m, $4 skittles, $300 budget

5. $y + x \geq 95$

6. $y \geq 95 - x$

7. m&m plus skittles, need 95 bags or more

8. $(41, 54)$
   ☑ Label: Maximum 41 skittles, 54 m&m

9. 41 skittles (41)($4) = $164
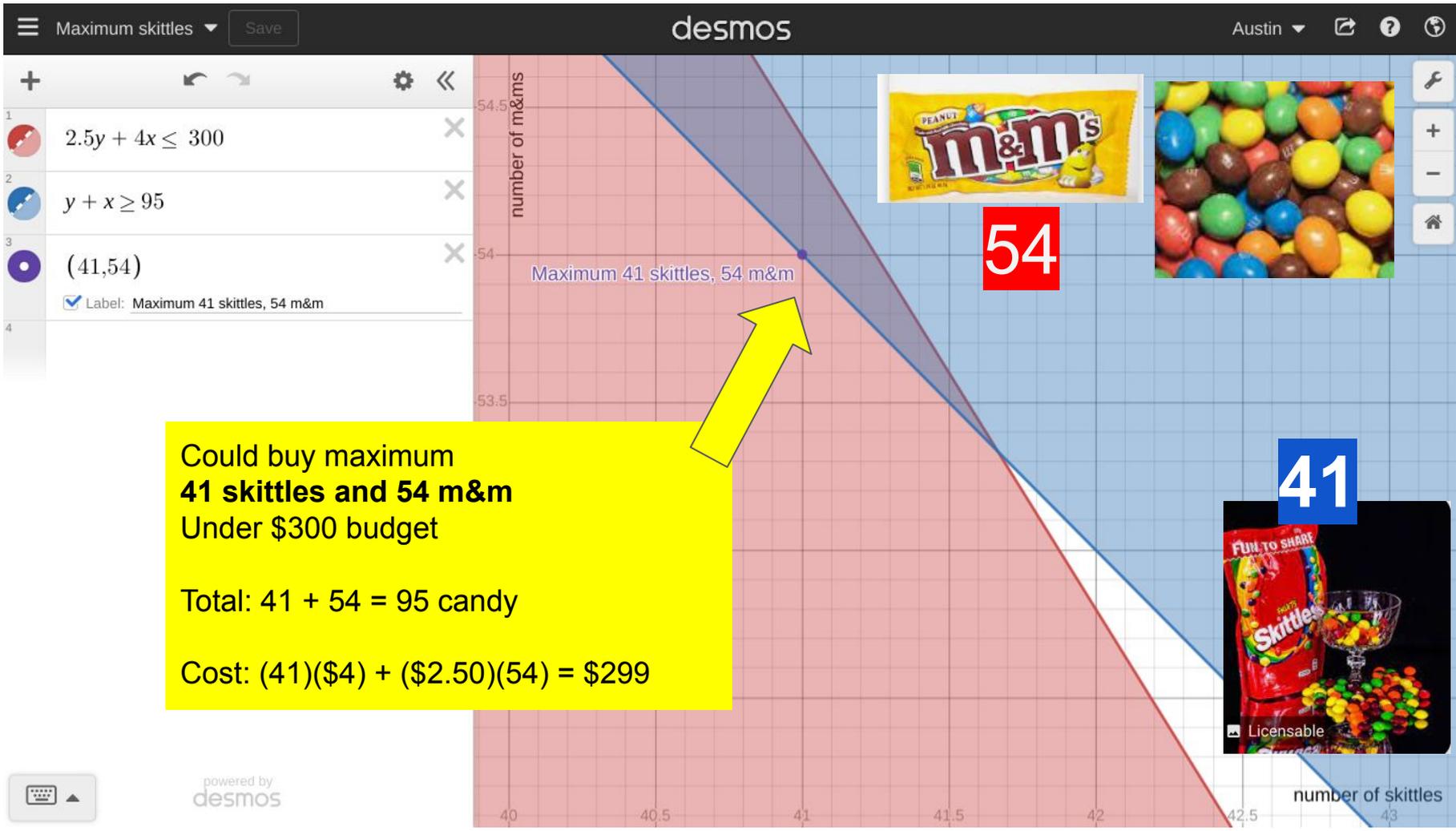
10. 54 m&m (54)($2.5) = $135

11. $299 cost, under $300 budget.

number of m&ms

150

100

50

Maximum 41 skittles, 54 m&m

-50   0   50   100   150   200

number of skittles

1 $2.5y + 4x \leq 300$

2 $y + x \geq 95$

3 $(41, 54)$

☑ Label: Maximum 41 skittles, 54 m&m

4

number of m&ms

Maximum 41 skittles, 54 m&m

54

41

Could buy maximum
41 skittles and 54 m&m
Under $300 budget

Total: 41 + 54 = 95 candy

Cost: (41)($4) + ($2.50)(54) = $299

Licensable

number of skittles