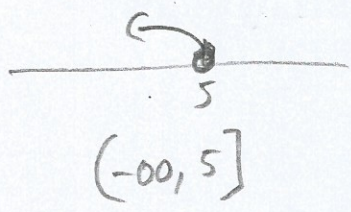6) The sum of twice a number and 5 is at most 15. What are the possible values for the number?

$$2x + 5 \leq 15$$
$$2x \leq 10$$
$$x \leq 5$$

$$(-\infty, 5]$$

7) The cost of a gallon of orange juice is \$3.50. What is the maximum number of containers you can buy for \$15?

$$x(3.50) \leq 15$$
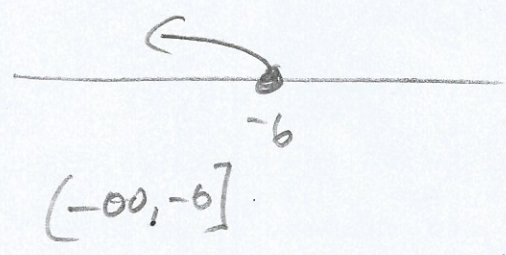$$x \leq 4.28$$

④

(costs \$14)

- can only buy 4 b/c 5 costs too much (17.50)
- buying 4 leaves him \$1 to buy gum ☺

8) Three times a number increased by 8 is no more than the number decreased by 4. Find the number.

$$3x + 8 \leq x - 4$$
$$2x \leq -12$$
$$x \leq -6$$

$$(-\infty, -6]$$

9) Two-thirds of a number plus 5 is greater than 12. Find the number.

$$\frac{2}{3}x + 5 > 12$$
$$\frac{2}{3}x > 7$$
$$x > \frac{21}{2}$$

$$\left(\frac{21}{2}, \infty\right)$$