Match each statement with an inequality.

		Inequality
e	1. The sum of a number and seven is at most fifteen.	a. $\frac{n}{3} < 20$
a	2. One-third the price of a haircut at Vidal Sassoon is less than twenty dollars.	b. $n + 7 \geq 15$
b	3. Seven more than a number is at least fifteen.	c. $7 + n > 15$
d	4. No more than twenty calories are consumed from a bag of chips split evenly among three people.	d. $\frac{n}{3} \leq 20$
c	5. Fifteen is less than a number increased by seven.	e. $n + 7 \leq 15$

Directions: Solve each word problem below by writing an inequality to represent the scenario.

6. There are 40 children and 12 adults going on a trip to New York City by car. Each car can hold up to 5 people. What is the minimum number of cars needed for the trip?

x = number of cars

$5x \geq 40 + 12$
$5x \geq 52$
$x \geq 10.4$

At least 11 cars are needed for the trip.

7. Keith plans to buy a car two years from now. He currently has $3,000 saved up to buy the car. From all the cars that Keith is considering buying, how much money does he need to save per month over the two years if the least expensive car he wants to buy is $15,000?

x = amount saved per month

$3000 + 24x \geq 15000$
$24x \geq 12000$
$x \geq 500$

At least $500 per month.

8. Games Works sells vintage video games for $15 each. Buyer's Warehouse sells the same games for only $12.00 each, but to purchase from Buyer's Warehouse, you have to pay an annual membership fee of $25. In one year, how many video games would you have to purchase for Buyer's Warehouse to be more cost effective?

x = number of video games

$15x > 12x + 25$
$3x > 25$
$x > 8.333\ldots$

At least 9 video games.