Topic 4.6 Practice Problems

1. Write the inequality for each situation.

   (a) The fine, f, was at most \$150.

   (b) You must pay, p, at least \$120.

   (c) The width of the picture, w, is shorter than 8.5 inches.

   (d) The value y does not equal $\frac{1}{2}$.

   (e) The bill, b, will be less than or equal to \$75.

   (f) Your speed, s, must be no less than 30 miles per hour.

   (g) You need to pay, p, more than \$75.

   (h) You must not exceed the speed, s, of 65 miles per hour.

   (i) The temperature, t, is above 32°F.

   (j) You can spend no more than \$50, represented by c.

   (k) The height of the plant, h, is at least 12 inches.

   (l) The number of students in the class, n, is fewer than 28.

   (m) Your score, s, is greater than or equal to 90.

   (n) The weight of the package, w, is under 20 pounds.

   (o) The movie ticket price, p, is more than \$10.

   (p) The length of the rope, r, is no shorter than 6 feet.

   (q) The distance you run, d, is less than or equal to 5 miles.

   (r) The value x is not equal to 4.

2. Below is a table where n is the number of people, and the right side is the total cost.

n	**Total cost**
$n < 5$	$\$7n$
$n \geq 5$	$\$5n$

   Today, there is an event: if n is **not** a prime number (so $n \neq$ a prime number), then they will charge **\$10 more**.

(a) If $n = 3$, what is the total cost?

(b) If $n = 4$, what is the total cost?

(c) If $n = 5$, what is the total cost?

(d) If $n = 9$, what is the total cost?

(e) If $n = 11$, what is the total cost?