6.3 Practice – Linear Inequalities

1. Is each inequality true (T) or false (F)?

   a) $5 < 8$ **b)** $-5 \le -8$ **c)** $0 \ge -4$ **d)** $-7 \le -7$ **e)** $-7 \ge -7$

2. Define a variable and write an inequality to model each situation.

   a) A coffee maker can hold no more than 12 cups of water.

   b) You must be at least 15 years old to obtain a learner's permit to drive in Nunavut.

   c) The maximum seating capacity of a school bus is 48 students.

   d) Over 2500 people participate in the charity bike-a-thon each year.

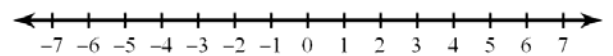   **e)** The shoe store sells sizes no larger than 13.

   f)
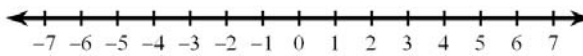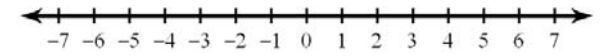

3. Draw a graph for each inequality.

a) $n \le -2$
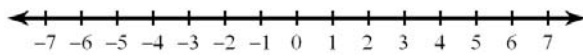
b) $-3 > n$
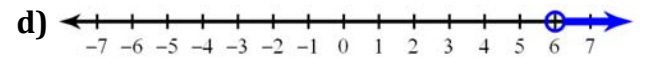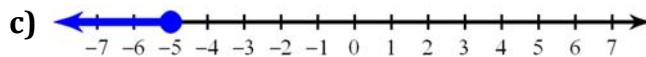

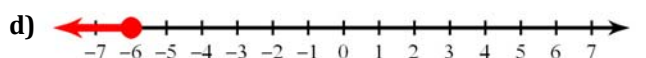**c)** $k > 2$

d) $-6 \ge k$

4. Write an inequality for each graph in <u>two</u> different ways (i.e. $x < -1$ can also be written as $-1 > x$).

a)

b)

c)

d)
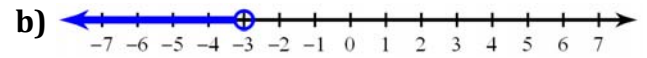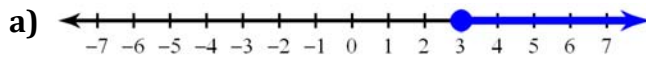
6.3 Practice – Answers

1. a) T   **b)** F   **c)** T   **d)** T   **e)** T

2. a) $c \le 12$ **b)** $a \ge 15$ **c)** $m \le 48$ **d)** $n > 2500$ **e)** $s \le 13$ **f)** $a \ge 14$

3. a)

b)

c)

d)
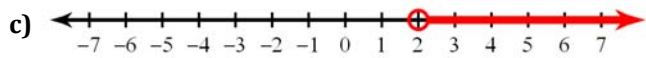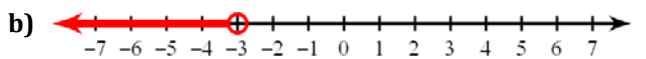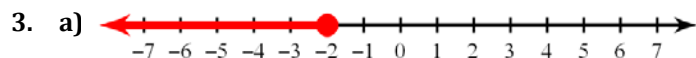
4. (You can choose any variable you want.)

a) $x \ge 3$ or $3 \le x$ **b)** $x < -3$ or $-3 > x$ **c)** $x \le -5$ or $-5 \ge x$ **d)** $x > 6$ or $6 < x$