hw-06-linear-inequalities

Due: **12/12/2015 at 06:00am EST.**

Students will be able to:

- Solve Linear Inequalities

Functions and symbols that WeBWorK understands.

Links to some useful WeBWorK pages for students

1. (1 pt) Express the following inequality using interval notation.

$$3x + 10 \le 6x + 12$$

Answer: _____

2. (1 pt) Solve the inequality $-2(n - 7) > 17$. Enter your answer using inequality notation.

_____

3. (1 pt) Consider the inequality

$$4 + 6x < 3x + 2$$

The solution of this inequality consists one or more of the following intervals: $(-\infty, A)$ and (A, ∞)

Find A _____

For each interval, answer YES or NO to whether the interval is included in the solution.

$(-\infty, A)$ _____

(A, ∞) _____

4. (1 pt) Solve the following inequality. Write the answer in interval notation.

$$3x + 9 \le 6x + 17$$

Answer: _____

Note: If needed enter ∞ as *infinity* and $-\infty$ as *-infinity* .

5. (1 pt) Solve the following inequality. Write the answer in interval notation.

$$22 \le \frac{5}{9}(x - 32) \le 43$$

Answer: _____

Note: If needed enter ∞ as *infinity* and $-\infty$ as *-infinity* .

6. (1 pt) Solve the following inequality. Write the answer in interval notation.
Note: If the answer includes more than one interval write the intervals separated by the "union" symbol, U. If needed enter ∞ as *infinity* and $-\infty$ as *-infinity* .

$$-6x - 2 < -2(-4x - 2) + 6$$

Answer: _____