Unit 6 Review: Alg I   NAME: _____

① $x - 2 < -4$ $\longleftrightarrow$

② $-6k + 7 \leq -29$ $\longleftrightarrow$

③ $3t + 8 \leq -1$ $\longleftrightarrow$

④ $2x + 4 > x + 6$ $\longleftrightarrow$

⑤ $-11 < 2x - 3 < 3$ $\longleftrightarrow$

⑥ $t + 1 \geq 4$ or $t + 2 \leq 0$ $\longleftrightarrow$

⑦ $9 \leq x - 4 < 10$ $\longleftrightarrow$

⑧ $4 < 6x - 8$ or   ~~$6 < x + 4x$~~ $\longleftrightarrow$
            $5 < -5x$

Write an inequality to represent each situation.

9.   Ten pounds of fresh tomatoes make between 10 and 15 cups of cooked tomatoes. How many cups does one pound of tomatoes make?

10. About 20% of the time you sleep is spent in rapid eye movement (REM) sleep, which is associated with dreaming. If an adult sleeps 7 to 8 hours, how much time is spent in REM sleep?

11. Hector's doctor told him that his cholesterol level must be below 200. Hector's cholesterol is 225. Find the number of points Hector should lower his cholesterol.

12. The cruise-control function on Georgia's car should keep speed of the car within 3 mi/h of the set speed. Write a compound inequality to show the acceptable speeds 's' if the set speed is 55 mi/h.

13. Water is not a liquid if its temperature is above 100^0C or below 0^0C. Write a compound inequality for the temperatures 't' when water is not liquid.