Complete as many of the following problems as you can with your group.

If **your entire table** finishes early, and you have presented your given problem, you may leave early.

(1) Solve the following inequality. Write your answer in interval notation: $-x^2 + 6x + 7 \geq 0$

(2) Solve the following inequality. Write your answer in interval notation: $2x^2 - 7x + 3 > 0$

(3) Solve the following inequality. Write your answer in interval notation: $9 - x^2 > 0$

(4) Solve the following inequality. Write your answer in interval notation: $x^2 + 2x - 15 < 0$

(5) Solve the following inequality. Write your answer in interval notation: $17x + 5 \geq -6x^2$

(6) Solve the following inequality. Write your answer in interval notation: $5x^2 + 2x \leq 0$

(7) Solve the following inequality. Write your answer in interval notation: $x^2 + 4x + 3 \leq 0$

(8) Solve the following inequality. Write your answer in interval notation: $x^2 + 7x + 10 > 0$

(9) Solve the following inequality. Write your answer in interval notation: $5x^2 - 27x \leq -10$

(10) Solve the following inequality. Write your answer in interval notation: $2x^2 + 4x + 4 > -5x$

Key:

(1) $[-1, 7]$

(2) $\left(-\infty, \frac{1}{2}\right) \cup (3, \infty)$

(3) $(-3, 3)$

(4) $(-5, 3)$

(5) $\left(-\infty, -\frac{5}{2}\right] \cup \left(-\frac{1}{3}, \infty\right)$

(6) $\left[-\frac{2}{5}, 0\right]$

(7) $[-3, -1]$

(8) $(-\infty, -5) \cup (-2, \infty)$

(9) $\left[\frac{2}{5}, 5\right]$

(10) $(-\infty, -4) \cup \left(-\frac{1}{2}, \infty\right)$