Circuit Training – Rational and Polynomial Inequalities **Name:** _____

Directions: Begin in cell #1. Read the question and do the work necessary to answer it. Circle your answer then search for it. When you find it, call this cell #2 and proceed in this manner until you complete the circuit by returning to the beginning.

Solve the inequalities and write the answers in interval notation.

Answer: $(-5,-1) \cup (1,2)$ #1 $\frac{x-7}{x-1} < 0$	Answer: $[-6,-3) \cup (8,\infty)$ # _____ $x^2 - 4x > 32$
Answer: $(-\infty,-4) \cup (8,\infty)$ # _____ $\frac{x+32}{x+6} \leq 3$	Answer: $(-\infty,-6) \cup [7,\infty)$ # _____ $(x+5)(x-2)(x-1)(x+1) < 0$
Answer: $(-\infty,\infty)$ # _____ $\frac{x+6}{x^2-5x-24} \geq 0$	Answer: $(1,7)$ # _____ $x^2 - 14x + 49 \geq 0$