Rational Expressions Scavenger Hunt: Name: _____A#_____

Modified for absent students (so not really a scavenger hunt, just practice ☺).

Problem:	Problem:
$$\frac{7x}{8} - \frac{8x-4}{5x-2}$$	$$\frac{4}{x+7} - \frac{7}{x-2}$$
Answer: $$\frac{35x^2-78x+32}{40x-16}, x \neq \frac{2}{5}$$	Answer: $$\frac{-3x-57}{x^2+5x-14}, x \neq 2, -7$$
Problem:	Problem:
$$\frac{7}{3x^2+24x} - \frac{7}{2x}$$	$$\frac{6x}{3} + \frac{7}{15x+3}$$
Answer: $$\frac{-154-21x}{6x^2+48x}, x \neq 0, -8$$	Answer: $$\frac{30x^2+6x+7}{15x+3}, x \neq -\frac{1}{5}$$
Problem:	Problem:
$$\frac{3}{x+7} + \frac{4}{x-8}$$	$$\frac{6}{x-1} + \frac{5x}{4}$$
Answer: $$\frac{7x+4}{x^2-x-56}, x \neq -7, 8$$	Answer: $$\frac{5x^2-5x+24}{4x-4}, x \neq 1$$

Problem:	Problem:
$$\frac{x^2 + 2x - 24}{x - 4} \cdot \frac{1}{x^2 - 6x + 8}$$	$$\frac{7x}{24x^3 - 64x^2} \cdot \frac{9x - 24}{7x}$$
Answer: $\frac{x+6}{x^2-6x+8}, x \neq 4, 2$	Answer: $\frac{3}{8x^2}, x \neq 0, \frac{8}{3}$
Problem:	Problem:
$$\frac{8x - 56}{8x + 48} \cdot \frac{x^2 + 9x + 18}{8x^2 + 24x}$$	$$\frac{x + 5}{10} \div \frac{x + 6}{3x + 18}$$
Answer: $\frac{x-7}{8x}, x \neq -6, -3, 0$	Answer: $\frac{3x+15}{10}, x \neq -6$
Problem:	Problem:
$$\frac{9x^2 + 15x}{8} \div \frac{9x^2 + 6x}{7}$$	$$\frac{3x - 9}{x - 6} \div \frac{x^2 - 11x + 24}{x - 6}$$
Answer: $\frac{21x+35}{24x+16}, x \neq -\frac{2}{3}, 0$	Answer: $\frac{3}{x-8}, x \neq 3, 6, 8$