Adding and Subtracting Rational Expressions ` NAME:

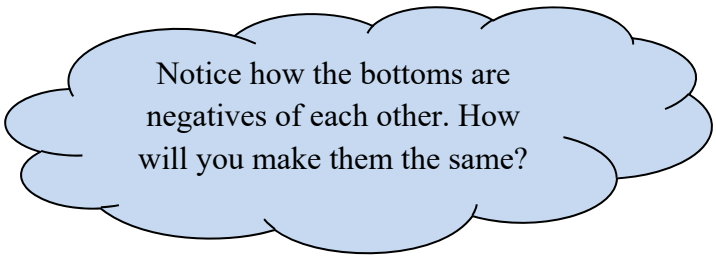
Perform the following operations. Simplify your final answers.

1. Add.

$$\frac{3x+4}{4x^2-3x-10}+\frac{x+1}{4x^2-3x-10}$$

2. Add.

$$\frac{3x}{x^2-4x}+\frac{12}{4x-x^2}$$



3. Add. This is a guided problem. Follow the thought bubbles.

$$\frac{x-14}{2x^2-x-3}+\frac{5}{2x-3}$$

$$=\frac{x-14}{(\quad)(\quad)}+\frac{5}{2x-3}$$

$$=\frac{x-14}{(\quad)(\quad)}+\frac{5}{(2x-3)}$$

$$=$$

Factor the first fraction's bottom.

Then determine the LCD. What do we need to multiply the second fraction by to force the LCD there?

Continue the problem to the end. Do *not* forget to look for like factors on top and bottom in your final answer.

4. Subtract.

$$\frac{13}{x^2-5x+6}-\frac{5}{x-3}$$