SM 3H

DATE: SECTION:

OBJECTIVE:

If you are given $\frac{3}{4}$, what 2 fractions add to that fraction?

Decomposition of partial fractions:

STEPS

1.

2.

**

3.

4.

5.

6.

**EXAMPLE:** Write the terms of the partial fraction decomposition of the rational function. Do NOT solve for the constants. (only do steps 1-2)

1. $\frac{7x+15}{x(x+5)}$

2. $\frac{-x^3+9x^2-20x+4}{x(x-1)^2}$

**EXMAPLE:** Find the partial fraction decomposition.

1. $\frac{-2x-35}{(x+4)(x-5)} = \frac{A}{x+4} + \frac{B}{x-5}$

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

3. $\frac{2x}{x^2+5x+4}$

4. $\frac{4x^2}{(x-1)(x-2)^2}$