

Accelerated Math 3

Partial Fraction Decompositions – ANSWERS

1.

$$f(x) = \frac{5}{x^2 + x - 6} = \frac{1}{x - 2} + \frac{-1}{x + 3}$$

2.

$$f(x) = \frac{5 - x}{2x^2 + x - 1} = \frac{3}{2x - 1} + \frac{-2}{x + 1}$$

3.

$$f(x) = \frac{x^2 + 12x + 12}{x^3 - 4x} = \frac{1}{x} + \frac{-2}{x + 2} + \frac{2}{x - 2}$$

4.

$$f(x) = \frac{x^3 + 2x^2 - x + 1}{x^2 + 3x - 4} = x - 1 + \frac{27}{5(x + 4)} + \frac{3}{5(x - 1)}$$

5.

$$f(x) = \frac{x - 2}{x^2 + 4x + 3} = \frac{5/2}{x + 3} - \frac{3/2}{x + 1}$$