Section 9.4: Partial Fraction Decomposition

For each rational expression, find the partial fraction decomposition.

Video 1

1) $\dfrac{3x+14}{(x-6)(x+2)}$

2) $\dfrac{12x - 66}{x^2 - 12x + 27}$

3) $\dfrac{x^3 + 5x^2 - 9x - 75}{x^2 + 3x - 28}$

Video 2

4) $\dfrac{4x+7}{(x+1)^2}$

5) $\dfrac{2x^2 - 8x + 9}{(x-2)^3}$

Video 3

6) $\dfrac{8x^2 + 4x - 32}{(x+3)(x^2 - 5)}$

Video 4

7) $\dfrac{x^3 + 2x^2 + x + 5}{\left(x^2 + 1\right)^2}$