

4 $p(x) = 2x^3 + 7x^2 + 2x - 3$

4 (a) Use the factor theorem to prove that $x + 3$ is a factor of $p(x)$

[2 marks]

4 (b) Simplify the expression $\frac{2x^3 + 7x^2 + 2x - 3}{4x^2 - 1}$, $x \neq \pm \frac{1}{2}$

[4 marks]