These are not questions from the C3 Paper last week but they are similar.

1) Express $\frac{2x}{x^2-16} - \frac{1}{x-4}$ as a single fraction in its simplest form

2) Find the equation of the normal to the curve $y = 3\ln(5x-4) + \frac{1}{2}x$ at the point where x= 1

3) Given that $y = 5x(x^3-4)^3$, show that $\frac{dy}{dx} = g(x)(x^3-4)^2$ where g(x) is a function to be determined.

Answers

1) $\frac{1}{x+4}$

2) $y = \frac{35}{62} - \frac{2x}{31}$

3) $10(5x^3 - 2)$