SQA Past paper questions

2017 – Paper 2 – Question 7

(a) Find the x-coordinate of the stationary point on the curve with equation $y = 6x - 2\sqrt{x^3}$. 4

(b) Hence, determine the greatest and least values of y in the interval $1 \leq x \leq 9$. 3

Click here for video solution.

2015 – Paper 1 – Question 22

The function $f(x) = \frac{4}{x^2} + x$ is defined on the domain $x > 0$, $x \in \mathbb{R}$, the set of real numbers.

Find the maximum and minimum values of $f(x)$ on the closed interval $1 \leq x \leq 4$. 6

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2012 – Paper 2 – Question 3

A function f is defined on the domain $0 \leq x \leq 3$ by $f(x) = x^3 - 2x^2 - 4x + 6$.

Determine the maximum and minimum values of f. 7

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2005 – Paper 1 – Question 8

A function f is defined by the formula $f(x) = 2x^3 - 7x^2 + 9$ where x is a real number.

(a) Show that $(x - 3)$ is a factor of $f(x)$, and hence factorise $f(x)$ fully. 5

(b) Find the coordinates of the points where the curve with equation $y = f(x)$ crosses the x- and y-axes. 2

(c) Find the greatest and least values of f in the interval $-2 \leq x \leq 2$. 5

Click here for video solution.