

Question 1

11

Show that the function $f : R - \{3\} \rightarrow R - \{1\}$ given by

$$f(x) = \frac{x-2}{x-3} \text{ is a bijection.}$$

Question 2

If $f : R \rightarrow R$ be the function defined by $f(x) = 4x^3 + 7$, show

that f is a bijection.

Question 3

Show that the function $f : R - \{3\} \rightarrow R - \{2\}$ given by

$$f(x) = \frac{x-2}{x-3} \text{ is a bijection.}$$

Question 4

Let $A = R - \{3\}$, $B = R - \{1\}$. Let $f : A \rightarrow B$ defined by

$$f(x) = \frac{x-2}{x-3}. \text{ Show that } f \text{ is bijective.}$$

Question 5

Show that the function $f : R - \{3\} \rightarrow R - \{2\}$ given by

$$f(x) = \frac{x-2}{x-3} \text{ is a bijection.}$$

Question 6

Show that the function $f : R - \{3\} \rightarrow R - \{1\}$ given by $f(x) = \frac{x-2}{x-3}$

is a bijection.