

Question 1

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

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

Question 2

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

that  $f$  is a bijection.

Question 3

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

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

Question 4

Let  $A = \mathbb{R} - \{3\}$ ,  $B = \mathbb{R} - \{1\}$ . Let  $f : A \rightarrow B$  defined by  $f(x) = \frac{x-2}{x-3}$ . Show that  $f$  is bijective.

Question 5

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

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

Question 6

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

is a bijection.