

Question 1

Correct

Marked out of  
1.50

Flag  
question

Let  $E$  be a nonempty subset of  $\mathbb{R}$  and  $\inf E = \beta < \infty$ . Let  $\varepsilon > 0$  be given. Then there is an  $x \in E$  such that  $\beta + \varepsilon > x$ .

Select one:

- False
- True ✓

The correct answer is: True

Question 2

Incorrect

Marked out of  
1.50

Flag  
question

$\sup\{x \in \mathbb{R} : x^2 \geq 7\}$  and  $\inf\{x \in \mathbb{R} : x^2 \geq 7\}$  are  $\infty$  and  $-\infty$  respectively.

Select one:

- False ✗
- True

The correct answer is: True

Question 3

Correct

Marked out of  
1.50

Flag  
question

If  $0 \leq a < b$ , then  $a^2 \leq ab < b^2$ .

Select one:

- True ✓
- False

The correct answer is: True

Question 4

Incorrect

Marked out of  
1.50

Flag  
question

The values of  $x$  that satisfy the inequality  $\frac{1}{x} < x$  are  $x \in (-1, 0) \cup (1, \infty)$ .

Select one:

- False ✗
- True

The correct answer is: True