

## Quiz No.15

student:

Every problem in this quiz ask you to give an example of a sequence satisfying some conditions.

All sequences should be specified by giving the respective general term.

**Problem 1:** Give an example of constant sequence.

**Problem 2:** Give an example of a divergent sequence.

**Problem 3:** Give an example of nonconstant sequence converging to 5.

**Problem 4:** Give an example of a strictly decreasing sequence which converges to  $\pi$ .

**Problem 5:** Give an example of a nonconstant sequence that converges to 1, and is neither decreasing, nor increasing.

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Kostadinov

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Boston University

**Problem 6:** Give an example of a sequence which has terms as big as wished, and is not an increasing sequence.

**Problem 7:** Give an example of a nonconstant bounded sequence.

**Problem 8:** Give an example of a divergent bounded sequence.

**Problem 9:** Give an example of a sequence which has among its terms the numbers  $-2$  and  $1$ .

**Problem 10:** Give an example of a convergent sequence which has among its terms the numbers  $-2$  and  $1$ .