

Whether the relation R on the set of all integers is reflexive, symmetric, anti symmetric, or transitive, where $(x, y) \in R$ if and only if $xy \geq 1$

- ▶ Anti symmetric
- ▶ Transitive
- ▶ Symmetric

▶ **Both Symmetric and transitive**

http://www.maths.uq.edu.au/courses/MATH1061/wkbooksols/chap10/S10_5_3solution.htm

Question No: 4 (Marks: 1) - Please choose one

The inverse of given relation $R = \{(1,1),(1,2),(1,4),(3,4),(4,1)\}$ is

- ▶ $\{(1,1),(2,1),(4,1),(2,3)\}$
- ▶ $\{(1,1),(1,2),(4,1),(4,3),(1,4)\}$
- ▶ **$\{(1,1),(2,1),(4,1),(4,3),(1,4)\}$**

Question No: 5 (Marks: 1) - Please choose one

A circuit with one input and one output signal is called.

▶ **NOT-gate (or inverter) (Page 31)**

- ▶ OR- gate
- ▶ AND- gate
- ▶ None of these

Question No: 6 (Marks: 1) - Please choose one

A sequence in which common difference of two consecutive terms is same is called

- ▶ geometric mean
- ▶ harmonic sequence
- ▶ geometric sequence
- ▶ **arithmetic progression (Page 146)**

Question No: 7 (Marks: 1) - Please choose one

If the sequence $\{a_n\} = 2 \cdot (-3)^n + 5^n$ then the term $a!$ is

- ▶ -1
- ▶ 0
- ▶ 1
- ▶ 2

Question No: 8 (Marks: 1) - Please choose one

How many integers from 1 through 100 must you pick in order to be sure of getting one that is divisible by 5?

- ▶ 21
- ▶ 41
- ▶ **81 (Page 241)**
- ▶ 56

Question No: 9 (Marks: 1) - Please choose one

What is the probability that a randomly chosen positive two-digit number is a multiple of 6?

- ▶ 0.5213
- ▶ **0.167 (Page 254)**