

National Standard Examination in Astronomy (NSEA) Solved Paper 2016 Part-3

Q: 7. The angle between the two complex numbers $a = i^1$ and $b = 1$ is

- (A) π
- (B) 0
- (C) $\frac{\pi}{2}$
- (D) $-\frac{\pi}{2}$

Answer: (B)

Q: 8. The number of rectangles that can be formed by joining the points of 4×4 grid of equispaced points is

- (A) 16
- (B) 36
- (C) 40
- (D) 42

Answer: (D)

Q: 9. A train of mass m is moving on a circular track of radius r with constant speed v . The length of the train exactly equal to half the circumference of the circular track Magnitude of its linear momentum is

- (A) mv/π
- (B) $0.5 mv$
- (C) $2mv/\pi$
- (D) mv

Answer: (C)

Q: 10. The number of integers a, b, c for which $2a^2 + b^2 - 8c = 7$ is

- (A) 2
- (B) Infinite

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(C) 0

(D) 4

Answer: (C)

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