

Q1. Answer in one word:

- I. Which Java package includes the Math class?
- II. Give the output of Math.sqrt(x); when x = 9.0
- III. Give the output of Math.ceil(46.6).
- IV. Give the output of Math.abs(x); when x = -9.99
- V. Which method is used to find the square root of a number?
- VI. What will be the output of Math.pow(2, 0)?
- VII. Give the output of Math.floor(46.6)?
- VIII. Distinguish between Math.ceil() and Math.floor() methods.

Q2. Write the following as Java expressions:

- I. $|x^3 - y^2 - 2xy||x^3 - y^2 - 2xy|$
- II. $\pi^6(z^4 - 2\pi)6\pi(z^4 - 2\pi)$
- III. $z^2 - \pi^3 3z^2 - \pi$
- IV. $x^3 - y^3 44x^3 - y^3$
- V. $amount * rate 1 - (1 + rate)^n 1 - (1 + rate)^n 1 amount * rate$

Q3 Write valid statements for the following in Java:

- I. Print the rounded off value of 234.49
- II. Print the absolute value of -9.99
- III. Print the largest of -45 and -50
- IV. Print the smallest of -56 and -57.4
- V. Print a random integer between 50 and 70
- VI. Print 10.5 raised to the power 3.8

Q4 Write a program in Java to find the minimum of three numbers using Math.min() method.

Q5 Write a program to print:

- I. p to the power q
- II. the square root of p

The values of p and q are 64 and 2 respectively.

Q6 Write a program to generate random integers in the range 10 to 20.

Q7 Write the equivalent Java statements for the following, only using the mathematical functions:

- I. Print the positive value of -101.
- II. Store the value -125 in a variable and print its cube root.
- III. Store the value 89.99 in a variable and convert it into its closest integer that is greater than or equal to 89.99.