



Name: _____ School: _____

8-6-24 Omega Contest

Sample Test 1

Correct answers are worth 1 point. Incorrect and blank answers are worth 0 points. You are given 30 minutes to complete the test and no calculators are allowed.

1. _____ What is the sum of the coefficients of the polynomial $(x + y)^4$?
2. _____ A circle has an inscribed angle with measure 50° . What is the measure of the arc the inscribed angle intersects?
3. _____ A tennis tournament is structured so that every player in the tournament plays every other player exactly once. If the tournament has 12 players, how many games are played?
4. _____ What is the least value of the function $f(x) = x^2 + 3x + 4$?
5. _____ A caterpillar is at $(0,0)$ on the xy -plane. How many ways are there for the caterpillar to get to the point $(5,7)$ by only making moves of going up or right?
6. _____ Martha is going on a run. She begins by running 1 mile east. Then she turns and runs 30° north of the x -axis for 3 miles. Then she stops to get a drink of water. How far is she away from her starting point?