Enter the nth value

60

Long recursive version

0 1 1 3 5 11 21 43 85 171 341 683 1365 2731 5461 10923 21845 43691 87381 174763 349525 699051 1398101 2796203 5592405 11184811 22369621 44739243 89478485 178956971 357913941 715827883 1431655765 2863311531 5726623061 11453246123 22906492245 45812984491 91625968981 183251937963 366503875925 733007751851 1466015503701 2932031007403 5864062014805 11728124029611 23456248059221 46912496118443 93824992236885 187649984473771 375299968947541 750599937895083 1501199875790165 3002399751580331 6004799503160661 12009599006321323 24019198012642645 48038396025285291 96076792050570581 192153584101141163

Long Recursive Version The elapsed time was **31429.29525488** seconds.

**Time Complexity -O(2^n)**

Iterative Version

0 1 1 3 5 11 21 43 85 171 341 683 1365 2731 5461 10923 21845 43691 87381 174763 349525 699051 1398101 2796203 5592405 11184811 22369621 44739243 89478485 178956971 357913941 715827883 1431655765 2863311531 5726623061 11453246123 22906492245 45812984491 91625968981 183251937963 366503875925 733007751851 1466015503701 2932031007403 5864062014805 11728124029611 23456248059221 46912496118443 93824992236885 187649984473771 375299968947541 750599937895083 1501199875790165 3002399751580331 6004799503160661 12009599006321323 24019198012642645 48038396025285291 96076792050570581 192153584101141163

Iterative Version The elapsed time was **0.002018527** seconds.

**Time Complexity -O(n)**

ClosedForm Verson

0 1 1 3 5 11 21 43 85 171 341 683 1365 2731 5461 10923 21845 43691 87381 174763 349525 699051 1398101 2796203 5592405 11184811 22369621 44739243 89478485 178956971 357913941 715827883 1431655765 2863311531 5726623061 11453246123 22906492245 45812984491 91625968981 183251937963 366503875925 733007751851 1466015503701 2932031007403 5864062014805 11728124029611 23456248059221 46912496118443 93824992236885 187649984473771 375299968947541 750599937895083 1501199875790165 3002399751580330 6004799503160661 12009599006321322 24019198012642644 48038396025285288 96076792050570576 192153584101141152

Closed Form Version The elapsed time was **0.003006407** seconds.

**Time Complexity -O(n)**