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Doctor Spickler

COSC 117

Lab 6 Logic

1. Want :Probbability
2. How: for loops and match counters
3. Use input of amount of rolls

Runs

-1

Input number of rolls: 200000

Target = 2 Probbability = 0.028505

Target = 3 Probbability = 0.0553

Target = 4 Probbability = 0.082975

Target = 5 Probbability = 0.11163

Target = 6 Probbability = 0.13893

Target = 7 Probbability = 0.168735

Target = 8 Probbability = 0.139495

Target = 9 Probbability = 0.110705

Target = 10 Probbability = 0.08241

Target = 11 Probbability = 0.055915

-2

Input number of rolls: 766666

Target = 2 Probbability = 0.02781654592743124

Target = 3 Probbability = 0.055776570240495864

Target = 4 Probbability = 0.08361268140233165

Target = 5 Probbability = 0.11178401024696544

Target = 6 Probbability = 0.13894707734528464

Target = 7 Probbability = 0.1668444929082547

Target = 8 Probbability = 0.1393409907312963

Target = 9 Probbability = 0.11083053115698362

Target = 10 Probbability = 0.08296572431802114

Target = 11 Probbability = 0.05567352667263189

-3

Input number of rolls: 500000

Target = 2 Probbability = 0.027554

Target = 3 Probbability = 0.055316

Target = 4 Probbability = 0.083152

Target = 5 Probbability = 0.111964

Target = 6 Probbability = 0.138948

Target = 7 Probbability = 0.166658

Target = 8 Probbability = 0.13869

Target = 9 Probbability = 0.111122

Target = 10 Probbability = 0.083868

Target = 11 Probbability = 0.055334

1. Want :Time and height of thrown object before it hits the ground
2. How: while loop break statements and an equation
3. User input height and velocity

Runs

-1

Input the Initial Height (in feet): 45

Input the Initial Velocity (in feet/sec.): 76

Time Height

---- ------

0.0 45.000

0.1 52.439

0.2 59.557

0.3 66.352

0.4 72.826

0.5 78.978

0.6 84.809

0.7 90.317

0.8 95.504

0.9 100.370

1.0 104.913

1.1 109.135

1.2 113.035

1.3 116.613

1.4 119.869

1.5 122.804

1.6 125.417

1.7 127.708

1.8 129.678

1.9 131.326

2.0 132.652

2.1 133.656

2.2 134.339

2.3 134.700

2.4 134.739

2.5 134.456

2.6 133.852

2.7 132.926

2.8 131.678

2.9 130.108

3.0 128.217

3.1 126.004

3.2 123.469

3.3 120.612

3.4 117.434

3.5 113.934

3.6 110.112

3.7 105.969

3.8 101.503

3.9 96.716

4.0 91.608

4.1 86.177

4.2 80.425

4.3 74.351

4.4 67.955

4.5 61.238

4.6 54.199

4.7 46.838

4.8 39.155

4.9 31.151

5.0 22.824

5.1 14.176

5.2 5.207

5.3 Hit the ground.

-2

Input the Initial Height (in feet): 10

Input the Initial Velocity (in feet/sec.): 25

Time Height

---- ------

0.0 10.000

0.1 12.339

0.2 14.357

0.3 16.052

0.4 17.426

0.5 18.478

0.6 19.209

0.7 19.617

0.8 19.704

0.9 19.470

1.0 18.913

1.1 18.035

1.2 16.835

1.3 15.313

1.4 13.469

1.5 11.304

1.6 8.817

1.7 6.008

1.8 2.878

1.9 Hit the ground.

-3

Input the Initial Height (in feet): 5

Input the Initial Velocity (in feet/sec.): 12

Time Height

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0.0 5.000

0.1 6.039

0.2 6.757

0.3 7.152

0.4 7.226

0.5 6.978

0.6 6.409

0.7 5.517

0.8 4.304

0.9 2.770

1.0 0.913

1.1 Hit the ground.