**5.01 Worksheet**

**Frequency of Heads vs. Tails Simulated with a Fair Coin (50:50)**

10x 100x 1000x 10000x

Heads 7 53 520 4898

Tails 3 47 480 5102

Heads 4 51 492 5013

Tails 6 49 508 4987

Heads 5 45 496 5011

Tails 5 55 504 4989

Heads 6 46 487 5061

Tails 4 54 513 4939

Heads 3 45 506 5104

Tails 7 55 494 4896

Avg. Heads 5 48 500.2 5017.4

Avg. Tails 5 52 499.8 4982.6

**Frequency of Heads vs. Tails Simulated with a Biased Coin (1:2)**

10x 100x 1000x 10000x

Heads 5 41 282 3066

Tails 5 59 718 6934

Heads 1 36 298 3022

Tails 9 64 702 3978

Heads 6 30 312 2966

Tails 4 70 688 7034

Heads 2 26 282 3062

Tails 8 74 718 6938

Heads 6 25 298 2983

Tails 4 75 702 7017

Avg. Heads 4 31.6 294.4 3019.8

Avg. Tails 6 68.4 705.6 6980.2