### 数据挖掘课程第一次作业

姓名：吴宇祺 学号：16340242

#### TASK1

+---------+---------+---------+---------+---------+-------+-------+---------+--------+--------+---------+

| N\Times | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

+---------+---------+---------+---------+---------+-------+-------+---------+--------+--------+---------+

| 20.0 | 0.85 | 0.7 | 0.7 | 0.8 | 0.75 | 0.85 | 0.85 | 0.75 | 0.65 | 0.85 |

| 50.0 | 0.76 | 0.88 | 0.78 | 0.88 | 0.86 | 0.82 | 0.76 | 0.8 | 0.8 | 0.88 |

| 100.0 | 0.78 | 0.83 | 0.73 | 0.84 | 0.84 | 0.76 | 0.83 | 0.82 | 0.81 | 0.77 |

| 200.0 | 0.785 | 0.815 | 0.82 | 0.75 | 0.77 | 0.815 | 0.81 | 0.76 | 0.775 | 0.79 |

| 300.0 | 0.78667 | 0.78333 | 0.80333 | 0.76333 | 0.82 | 0.8 | 0.81333 | 0.79 | 0.75 | 0.79667 |

| 500.0 | 0.788 | 0.818 | 0.8 | 0.756 | 0.792 | 0.79 | 0.74 | 0.822 | 0.794 | 0.774 |

| 1000.0 | 0.81 | 0.775 | 0.788 | 0.776 | 0.778 | 0.794 | 0.759 | 0.787 | 0.776 | 0.781 |

| 5000.0 | 0.7804 | 0.7742 | 0.7904 | 0.7798 | 0.787 | 0.781 | 0.7906 | 0.7782 | 0.7854 | 0.7852 |

+---------+---------+---------+---------+---------+-------+-------+---------+--------+--------+---------+

+---------+--------+---------+---------+---------+---------+---------+--------+-------+---------+---------+

| N\Times | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

+---------+--------+---------+---------+---------+---------+---------+--------+-------+---------+---------+

| 20.0 | 0.65 | 0.9 | 0.7 | 0.7 | 0.7 | 0.9 | 0.85 | 0.75 | 0.85 | 0.9 |

| 50.0 | 0.88 | 0.8 | 0.84 | 0.86 | 0.76 | 0.8 | 0.78 | 0.7 | 0.82 | 0.82 |

| 100.0 | 0.8 | 0.78 | 0.8 | 0.83 | 0.86 | 0.77 | 0.73 | 0.8 | 0.81 | 0.9 |

| 200.0 | 0.8 | 0.745 | 0.76 | 0.835 | 0.785 | 0.795 | 0.78 | 0.78 | 0.785 | 0.785 |

| 300.0 | 0.81 | 0.77333 | 0.77333 | 0.75333 | 0.74667 | 0.76333 | 0.85 | 0.77 | 0.81333 | 0.77333 |

| 500.0 | 0.774 | 0.79 | 0.792 | 0.784 | 0.792 | 0.766 | 0.82 | 0.8 | 0.748 | 0.794 |

| 1000.0 | 0.78 | 0.755 | 0.786 | 0.787 | 0.795 | 0.795 | 0.8 | 0.796 | 0.796 | 0.77 |

| 5000.0 | 0.7952 | 0.791 | 0.7966 | 0.7844 | 0.783 | 0.7842 | 0.7822 | 0.786 | 0.7828 | 0.7828 |

+---------+--------+---------+---------+---------+---------+---------+--------+-------+---------+---------+

+---------+-------+---------+--------+---------+---------+---------+--------+---------+--------+-------+

| N\Times | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

+---------+-------+---------+--------+---------+---------+---------+--------+---------+--------+-------+

| 20.0 | 0.85 | 0.75 | 0.75 | 0.8 | 0.9 | 0.7 | 0.9 | 0.75 | 0.8 | 0.85 |

| 50.0 | 0.74 | 0.78 | 0.82 | 0.8 | 0.82 | 0.64 | 0.82 | 0.8 | 0.76 | 0.72 |

| 100.0 | 0.71 | 0.79 | 0.81 | 0.86 | 0.76 | 0.8 | 0.72 | 0.82 | 0.76 | 0.78 |

| 200.0 | 0.76 | 0.79 | 0.785 | 0.755 | 0.775 | 0.83 | 0.835 | 0.8 | 0.79 | 0.745 |

| 300.0 | 0.79 | 0.79667 | 0.77 | 0.75667 | 0.76667 | 0.79333 | 0.78 | 0.79667 | 0.8 | 0.82 |

| 500.0 | 0.796 | 0.764 | 0.812 | 0.774 | 0.778 | 0.772 | 0.794 | 0.758 | 0.782 | 0.768 |

| 1000.0 | 0.773 | 0.771 | 0.8 | 0.776 | 0.79 | 0.759 | 0.806 | 0.775 | 0.795 | 0.789 |

| 5000.0 | 0.792 | 0.791 | 0.7858 | 0.782 | 0.783 | 0.7788 | 0.7874 | 0.7808 | 0.7888 | 0.802 |

+---------+-------+---------+--------+---------+---------+---------+--------+---------+--------+-------+

+---------+---------+---------+---------+---------+--------+---------+---------+---------+---------+---------+

| N\Times | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

+---------+---------+---------+---------+---------+--------+---------+---------+---------+---------+---------+

| 20.0 | 0.8 | 0.6 | 0.95 | 0.8 | 0.7 | 0.9 | 0.85 | 0.8 | 0.8 | 0.6 |

| 50.0 | 0.72 | 0.78 | 0.86 | 0.76 | 0.76 | 0.78 | 0.76 | 0.8 | 0.84 | 0.68 |

| 100.0 | 0.85 | 0.73 | 0.83 | 0.86 | 0.73 | 0.88 | 0.72 | 0.75 | 0.75 | 0.8 |

| 200.0 | 0.82 | 0.765 | 0.745 | 0.815 | 0.785 | 0.815 | 0.805 | 0.805 | 0.78 | 0.805 |

| 300.0 | 0.80333 | 0.79333 | 0.79333 | 0.82667 | 0.8 | 0.77667 | 0.78333 | 0.79667 | 0.77667 | 0.77667 |

| 500.0 | 0.774 | 0.804 | 0.776 | 0.792 | 0.776 | 0.792 | 0.778 | 0.788 | 0.8 | 0.772 |

| 1000.0 | 0.788 | 0.812 | 0.794 | 0.811 | 0.779 | 0.778 | 0.774 | 0.785 | 0.801 | 0.809 |

| 5000.0 | 0.7858 | 0.779 | 0.7816 | 0.79 | 0.7894 | 0.7834 | 0.791 | 0.7898 | 0.7898 | 0.7906 |

+---------+---------+---------+---------+---------+--------+---------+---------+---------+---------+---------+

+---------+-------+--------+---------+---------+-------+---------+--------+---------+---------+---------+

| N\Times | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

+---------+-------+--------+---------+---------+-------+---------+--------+---------+---------+---------+

| 20.0 | 0.75 | 0.8 | 0.8 | 0.85 | 0.75 | 0.75 | 0.85 | 0.55 | 0.9 | 0.65 |

| 50.0 | 0.74 | 0.74 | 0.78 | 0.84 | 0.74 | 0.82 | 0.74 | 0.86 | 0.72 | 0.8 |

| 100.0 | 0.73 | 0.77 | 0.82 | 0.8 | 0.79 | 0.76 | 0.8 | 0.85 | 0.79 | 0.77 |

| 200.0 | 0.74 | 0.725 | 0.76 | 0.775 | 0.75 | 0.75 | 0.78 | 0.805 | 0.755 | 0.725 |

| 300.0 | 0.78 | 0.78 | 0.78333 | 0.79667 | 0.78 | 0.77667 | 0.79 | 0.79333 | 0.83667 | 0.75667 |

| 500.0 | 0.808 | 0.812 | 0.758 | 0.796 | 0.776 | 0.782 | 0.778 | 0.778 | 0.782 | 0.78 |

| 1000.0 | 0.795 | 0.777 | 0.788 | 0.772 | 0.773 | 0.8 | 0.783 | 0.783 | 0.805 | 0.785 |

| 5000.0 | 0.795 | 0.7918 | 0.789 | 0.7854 | 0.789 | 0.7806 | 0.7776 | 0.787 | 0.7896 | 0.7804 |

+---------+-------+--------+---------+---------+-------+---------+--------+---------+---------+---------+

+---------+---------+---------+---------+---------+--------+--------+---------+---------+---------+---------+

| N\Times | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

+---------+---------+---------+---------+---------+--------+--------+---------+---------+---------+---------+

| 20.0 | 0.85 | 0.8 | 0.75 | 0.8 | 0.85 | 0.8 | 0.5 | 0.7 | 0.8 | 0.8 |

| 50.0 | 0.84 | 0.84 | 0.8 | 0.86 | 0.74 | 0.74 | 0.78 | 0.76 | 0.7 | 0.86 |

| 100.0 | 0.81 | 0.75 | 0.82 | 0.84 | 0.73 | 0.76 | 0.79 | 0.78 | 0.75 | 0.8 |

| 200.0 | 0.8 | 0.775 | 0.785 | 0.82 | 0.725 | 0.785 | 0.77 | 0.82 | 0.765 | 0.79 |

| 300.0 | 0.73667 | 0.77333 | 0.81333 | 0.78333 | 0.81 | 0.73 | 0.78667 | 0.79667 | 0.79667 | 0.79667 |

| 500.0 | 0.768 | 0.78 | 0.804 | 0.778 | 0.814 | 0.79 | 0.744 | 0.772 | 0.766 | 0.786 |

| 1000.0 | 0.775 | 0.799 | 0.786 | 0.781 | 0.799 | 0.789 | 0.794 | 0.792 | 0.789 | 0.794 |

| 5000.0 | 0.7914 | 0.7734 | 0.792 | 0.7758 | 0.7806 | 0.7858 | 0.7978 | 0.7874 | 0.7828 | 0.7852 |

+---------+---------+---------+---------+---------+--------+--------+---------+---------+---------+---------+

+---------+---------+---------+--------+---------+---------+--------+---------+---------+--------+--------+

| N\Times | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |

+---------+---------+---------+--------+---------+---------+--------+---------+---------+--------+--------+

| 20.0 | 0.55 | 0.75 | 0.85 | 0.7 | 0.8 | 0.8 | 0.85 | 0.85 | 0.85 | 0.8 |

| 50.0 | 0.8 | 0.84 | 0.8 | 0.72 | 0.76 | 0.7 | 0.76 | 0.68 | 0.8 | 0.82 |

| 100.0 | 0.82 | 0.75 | 0.82 | 0.76 | 0.88 | 0.79 | 0.69 | 0.79 | 0.69 | 0.81 |

| 200.0 | 0.795 | 0.79 | 0.84 | 0.775 | 0.82 | 0.835 | 0.805 | 0.79 | 0.785 | 0.82 |

| 300.0 | 0.80667 | 0.80667 | 0.75 | 0.79333 | 0.77667 | 0.79 | 0.80333 | 0.74667 | 0.83 | 0.8 |

| 500.0 | 0.808 | 0.794 | 0.768 | 0.78 | 0.812 | 0.798 | 0.762 | 0.804 | 0.788 | 0.762 |

| 1000.0 | 0.786 | 0.794 | 0.798 | 0.786 | 0.785 | 0.777 | 0.791 | 0.774 | 0.787 | 0.791 |

| 5000.0 | 0.7844 | 0.7902 | 0.7908 | 0.7792 | 0.7898 | 0.7886 | 0.7868 | 0.7824 | 0.7836 | 0.7952 |

+---------+---------+---------+--------+---------+---------+--------+---------+---------+--------+--------+

+---------+-------+---------+---------+---------+--------+--------+--------+---------+--------+---------+

| N\Times | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |

+---------+-------+---------+---------+---------+--------+--------+--------+---------+--------+---------+

| 20.0 | 0.7 | 0.85 | 0.85 | 0.8 | 0.7 | 0.75 | 0.9 | 0.85 | 0.95 | 0.7 |

| 50.0 | 0.88 | 0.7 | 0.82 | 0.8 | 0.8 | 0.82 | 0.74 | 0.74 | 0.8 | 0.66 |

| 100.0 | 0.88 | 0.68 | 0.82 | 0.86 | 0.81 | 0.83 | 0.79 | 0.74 | 0.78 | 0.76 |

| 200.0 | 0.78 | 0.795 | 0.755 | 0.735 | 0.84 | 0.75 | 0.755 | 0.81 | 0.785 | 0.78 |

| 300.0 | 0.79 | 0.76333 | 0.77333 | 0.78333 | 0.79 | 0.81 | 0.76 | 0.76667 | 0.74 | 0.82333 |

| 500.0 | 0.796 | 0.792 | 0.816 | 0.792 | 0.774 | 0.754 | 0.768 | 0.796 | 0.778 | 0.806 |

| 1000.0 | 0.777 | 0.773 | 0.807 | 0.792 | 0.814 | 0.759 | 0.798 | 0.786 | 0.804 | 0.798 |

| 5000.0 | 0.794 | 0.796 | 0.7834 | 0.7832 | 0.7784 | 0.7872 | 0.7882 | 0.7872 | 0.7832 | 0.778 |

+---------+-------+---------+---------+---------+--------+--------+--------+---------+--------+---------+

+---------+---------+---------+---------+--------+---------+---------+---------+--------+---------+---------+

| N\Times | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |

+---------+---------+---------+---------+--------+---------+---------+---------+--------+---------+---------+

| 20.0 | 0.8 | 0.85 | 0.85 | 0.8 | 0.85 | 0.8 | 0.75 | 0.8 | 0.75 | 0.9 |

| 50.0 | 0.66 | 0.76 | 0.82 | 0.72 | 0.92 | 0.76 | 0.78 | 0.8 | 0.86 | 0.8 |

| 100.0 | 0.83 | 0.77 | 0.79 | 0.83 | 0.79 | 0.77 | 0.73 | 0.82 | 0.74 | 0.76 |

| 200.0 | 0.785 | 0.79 | 0.83 | 0.805 | 0.815 | 0.76 | 0.77 | 0.79 | 0.745 | 0.77 |

| 300.0 | 0.81667 | 0.80667 | 0.80333 | 0.75 | 0.74667 | 0.78333 | 0.72667 | 0.76 | 0.78667 | 0.78667 |

| 500.0 | 0.774 | 0.814 | 0.762 | 0.782 | 0.772 | 0.774 | 0.792 | 0.764 | 0.796 | 0.784 |

| 1000.0 | 0.784 | 0.778 | 0.783 | 0.779 | 0.76 | 0.773 | 0.754 | 0.789 | 0.774 | 0.803 |

| 5000.0 | 0.7826 | 0.7858 | 0.7838 | 0.7894 | 0.7866 | 0.7858 | 0.7788 | 0.7996 | 0.7836 | 0.788 |

+---------+---------+---------+---------+--------+---------+---------+---------+--------+---------+---------+

+---------+---------+---------+--------+--------+---------+--------+---------+---------+---------+---------+

| N\Times | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

+---------+---------+---------+--------+--------+---------+--------+---------+---------+---------+---------+

| 20.0 | 0.95 | 0.85 | 0.65 | 0.85 | 0.65 | 0.75 | 0.65 | 0.7 | 0.75 | 0.55 |

| 50.0 | 0.82 | 0.76 | 0.84 | 0.8 | 0.68 | 0.88 | 0.78 | 0.9 | 0.82 | 0.78 |

| 100.0 | 0.79 | 0.77 | 0.83 | 0.84 | 0.81 | 0.77 | 0.8 | 0.79 | 0.75 | 0.75 |

| 200.0 | 0.795 | 0.77 | 0.815 | 0.79 | 0.725 | 0.78 | 0.82 | 0.795 | 0.76 | 0.79 |

| 300.0 | 0.80667 | 0.77667 | 0.81 | 0.78 | 0.83333 | 0.75 | 0.79667 | 0.78333 | 0.78667 | 0.79333 |

| 500.0 | 0.802 | 0.806 | 0.784 | 0.788 | 0.808 | 0.788 | 0.78 | 0.792 | 0.792 | 0.826 |

| 1000.0 | 0.786 | 0.777 | 0.802 | 0.8 | 0.78 | 0.801 | 0.789 | 0.782 | 0.78 | 0.775 |

| 5000.0 | 0.7972 | 0.7846 | 0.7832 | 0.7826 | 0.7864 | 0.7868 | 0.7846 | 0.777 | 0.78 | 0.793 |

+---------+---------+---------+--------+--------+---------+--------+---------+---------+---------+---------+

+---------+---------+----------+

| N\Times | Mean | Variance |

+---------+---------+----------+

| 20 | 0.7815 | 0.00848 |

| 50 | 0.788 | 0.00327 |

| 100 | 0.7899 | 0.00197 |

| 200 | 0.78485 | 0.00077 |

| 300 | 0.78613 | 0.00056 |

| 500 | 0.78564 | 0.00031 |

| 1000 | 0.78634 | 0.00017 |

| 5000 | 0.78609 | 3e-05 |

+---------+---------+----------+

#### TASK2

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.09679 | 0.1544 | 0.30084 | 0.20311 | 0.2896 | 0.3469 | 0.00731 | 0.0405 | 0.45547 | 0.26823 |

| 10.0 | 0.36185 | 0.19607 | 0.35904 | 0.13737 | 0.19681 | 0.13341 | 0.3208 | 0.09796 | 0.33547 | 0.19919 |

| 20.0 | 0.23806 | 0.25778 | 0.19498 | 0.15794 | 0.25143 | 0.26453 | 0.18389 | 0.44107 | 0.29429 | 0.13433 |

| 30.0 | 0.29421 | 0.17706 | 0.22807 | 0.20917 | 0.22836 | 0.27585 | 0.28663 | 0.15315 | 0.25247 | 0.21411 |

| 40.0 | 0.28709 | 0.33283 | 0.20582 | 0.33176 | 0.31011 | 0.33126 | 0.20355 | 0.17918 | 0.23639 | 0.20237 |

| 50.0 | 0.14031 | 0.28261 | 0.30909 | 0.25175 | 0.26761 | 0.17426 | 0.22292 | 0.22798 | 0.24386 | 0.28026 |

| 60.0 | 0.29585 | 0.24128 | 0.29866 | 0.24978 | 0.28749 | 0.26923 | 0.21579 | 0.25747 | 0.19713 | 0.29626 |

| 70.0 | 0.24714 | 0.26446 | 0.22234 | 0.20378 | 0.22026 | 0.25439 | 0.29218 | 0.26354 | 0.26099 | 0.22185 |

| 80.0 | 0.2708 | 0.22025 | 0.25461 | 0.25452 | 0.24488 | 0.25352 | 0.25775 | 0.26191 | 0.23957 | 0.21027 |

| 100.0 | 0.26608 | 0.25361 | 0.25051 | 0.22595 | 0.18768 | 0.24089 | 0.27593 | 0.23404 | 0.21985 | 0.27041 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.25391 | 0.36719 | 0.17146 | 0.06521 | 0.1958 | 0.21803 | 0.28107 | 0.26535 | 0.44212 | 0.11493 |

| 10.0 | 0.21591 | 0.30883 | 0.19215 | 0.27571 | 0.25378 | 0.23185 | 0.29834 | 0.22081 | 0.31331 | 0.10799 |

| 20.0 | 0.20987 | 0.25296 | 0.33182 | 0.15098 | 0.23834 | 0.22757 | 0.25481 | 0.27473 | 0.15258 | 0.15711 |

| 30.0 | 0.16722 | 0.22642 | 0.21642 | 0.33365 | 0.22861 | 0.19636 | 0.23533 | 0.2739 | 0.25727 | 0.19452 |

| 40.0 | 0.17462 | 0.248 | 0.20455 | 0.20574 | 0.24244 | 0.23522 | 0.22618 | 0.26087 | 0.2491 | 0.23618 |

| 50.0 | 0.25352 | 0.26118 | 0.22967 | 0.33289 | 0.20022 | 0.28197 | 0.27383 | 0.1993 | 0.23473 | 0.29424 |

| 60.0 | 0.25145 | 0.25884 | 0.28578 | 0.27713 | 0.35682 | 0.25372 | 0.18336 | 0.24821 | 0.22308 | 0.25782 |

| 70.0 | 0.22876 | 0.22521 | 0.23207 | 0.26074 | 0.23718 | 0.22645 | 0.24324 | 0.27156 | 0.25796 | 0.2611 |

| 80.0 | 0.23535 | 0.23595 | 0.21352 | 0.21949 | 0.2898 | 0.2293 | 0.22813 | 0.20097 | 0.24655 | 0.26636 |

| 100.0 | 0.25229 | 0.21402 | 0.26322 | 0.24186 | 0.25535 | 0.22162 | 0.28929 | 0.26893 | 0.29598 | 0.24743 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 21 | 22 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.37576 | 0.28665 | 0.42666 | 0.04394 | 0.0328 | 0.06525 | 0.22839 | 0.12223 | 0.36791 | 0.07432 |

| 10.0 | 0.24789 | 0.02677 | 0.20753 | 0.25137 | 0.12985 | 0.06829 | 0.16821 | 0.1297 | 0.23038 | 0.35289 |

| 20.0 | 0.25871 | 0.3183 | 0.2387 | 0.26624 | 0.15528 | 0.19745 | 0.14429 | 0.25183 | 0.2406 | 0.30016 |

| 30.0 | 0.22571 | 0.20015 | 0.28682 | 0.1732 | 0.24263 | 0.26408 | 0.24849 | 0.20022 | 0.15687 | 0.21191 |

| 40.0 | 0.32445 | 0.27524 | 0.26147 | 0.31442 | 0.21584 | 0.33969 | 0.29877 | 0.28818 | 0.27647 | 0.18098 |

| 50.0 | 0.24806 | 0.2485 | 0.24509 | 0.20886 | 0.23761 | 0.25747 | 0.31577 | 0.21254 | 0.27913 | 0.33306 |

| 60.0 | 0.27285 | 0.18638 | 0.27853 | 0.27748 | 0.27461 | 0.2531 | 0.26024 | 0.26435 | 0.26728 | 0.23999 |

| 70.0 | 0.1862 | 0.27712 | 0.23447 | 0.19731 | 0.24866 | 0.2428 | 0.20077 | 0.22595 | 0.2398 | 0.27982 |

| 80.0 | 0.21391 | 0.2442 | 0.23087 | 0.202 | 0.22317 | 0.21202 | 0.21927 | 0.26157 | 0.26551 | 0.33978 |

| 100.0 | 0.25632 | 0.2645 | 0.23283 | 0.24851 | 0.27495 | 0.23294 | 0.24039 | 0.23771 | 0.29189 | 0.21491 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.33811 | 0.29135 | 0.15149 | 0.26296 | 0.28781 | 0.27283 | 0.22062 | 0.25025 | 0.51587 | 0.32257 |

| 10.0 | 0.27658 | 0.28475 | 0.10203 | 0.20023 | 0.22525 | 0.19623 | 0.24191 | 0.25491 | 0.13812 | 0.24849 |

| 20.0 | 0.2388 | 0.28443 | 0.18461 | 0.15145 | 0.24937 | 0.28166 | 0.25968 | 0.22608 | 0.28191 | 0.25116 |

| 30.0 | 0.20407 | 0.27055 | 0.21736 | 0.32511 | 0.20479 | 0.22883 | 0.35013 | 0.23045 | 0.32037 | 0.20378 |

| 40.0 | 0.22094 | 0.24578 | 0.28904 | 0.32324 | 0.19946 | 0.29326 | 0.18541 | 0.37369 | 0.31008 | 0.23702 |

| 50.0 | 0.26466 | 0.28558 | 0.25911 | 0.30754 | 0.28598 | 0.19042 | 0.2751 | 0.30921 | 0.31719 | 0.30237 |

| 60.0 | 0.26667 | 0.24466 | 0.21343 | 0.24374 | 0.26991 | 0.26633 | 0.27058 | 0.21562 | 0.18488 | 0.25699 |

| 70.0 | 0.25875 | 0.23429 | 0.30635 | 0.27623 | 0.20747 | 0.24933 | 0.21733 | 0.25918 | 0.24709 | 0.2578 |

| 80.0 | 0.25854 | 0.28765 | 0.26692 | 0.2406 | 0.27791 | 0.22781 | 0.29229 | 0.27671 | 0.1817 | 0.29316 |

| 100.0 | 0.21161 | 0.25794 | 0.2518 | 0.22885 | 0.24346 | 0.23008 | 0.28234 | 0.26138 | 0.28451 | 0.28181 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.19072 | 0.25359 | 0.18829 | 0.32985 | 0.1166 | 0.28063 | 0.19162 | 0.16421 | 0.16209 | 0.3229 |

| 10.0 | 0.25616 | 0.2663 | 0.28404 | 0.33522 | 0.29013 | 0.3352 | 0.24462 | 0.25525 | 0.23861 | 0.15585 |

| 20.0 | 0.2591 | 0.22848 | 0.34512 | 0.32026 | 0.25927 | 0.29958 | 0.16263 | 0.34682 | 0.30186 | 0.1996 |

| 30.0 | 0.1654 | 0.29379 | 0.22976 | 0.31049 | 0.30238 | 0.30518 | 0.28968 | 0.22269 | 0.23824 | 0.1999 |

| 40.0 | 0.19171 | 0.20256 | 0.32885 | 0.27618 | 0.2413 | 0.31313 | 0.20524 | 0.3532 | 0.21013 | 0.2016 |

| 50.0 | 0.2448 | 0.21729 | 0.21505 | 0.26242 | 0.27119 | 0.23405 | 0.29333 | 0.34505 | 0.24637 | 0.23658 |

| 60.0 | 0.26594 | 0.2536 | 0.2425 | 0.27698 | 0.28075 | 0.32094 | 0.23009 | 0.21097 | 0.21366 | 0.2672 |

| 70.0 | 0.19348 | 0.2811 | 0.27249 | 0.21471 | 0.24669 | 0.2323 | 0.26229 | 0.26169 | 0.25317 | 0.24194 |

| 80.0 | 0.26357 | 0.236 | 0.28686 | 0.25491 | 0.29189 | 0.25408 | 0.18136 | 0.24972 | 0.20309 | 0.26787 |

| 100.0 | 0.25267 | 0.21949 | 0.22885 | 0.25992 | 0.20382 | 0.22294 | 0.25973 | 0.22307 | 0.23854 | 0.26561 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.27021 | 0.19531 | 0.25333 | 0.18356 | 0.04178 | 0.33876 | 0.1335 | 0.11376 | 0.13406 | 0.14879 |

| 10.0 | 0.08578 | 0.20951 | 0.27561 | 0.18665 | 0.33575 | 0.20554 | 0.24075 | 0.24545 | 0.16317 | 0.22532 |

| 20.0 | 0.22509 | 0.22027 | 0.19955 | 0.25193 | 0.20834 | 0.19338 | 0.27338 | 0.32247 | 0.21235 | 0.33075 |

| 30.0 | 0.23795 | 0.2516 | 0.24441 | 0.2323 | 0.2208 | 0.22387 | 0.31437 | 0.331 | 0.17262 | 0.24196 |

| 40.0 | 0.27976 | 0.19035 | 0.23034 | 0.31498 | 0.24666 | 0.20791 | 0.26026 | 0.13122 | 0.27125 | 0.22006 |

| 50.0 | 0.23218 | 0.25664 | 0.23189 | 0.33375 | 0.2153 | 0.24901 | 0.23466 | 0.2004 | 0.22897 | 0.25245 |

| 60.0 | 0.2625 | 0.24049 | 0.27497 | 0.23955 | 0.24194 | 0.18214 | 0.27726 | 0.20724 | 0.28174 | 0.27674 |

| 70.0 | 0.25229 | 0.23686 | 0.21698 | 0.28423 | 0.26253 | 0.2742 | 0.24927 | 0.27677 | 0.2819 | 0.29473 |

| 80.0 | 0.25956 | 0.26216 | 0.23478 | 0.21435 | 0.27184 | 0.25119 | 0.25206 | 0.27242 | 0.24996 | 0.20854 |

| 100.0 | 0.24409 | 0.212 | 0.27586 | 0.26767 | 0.28351 | 0.20279 | 0.27855 | 0.23746 | 0.24594 | 0.20547 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.06077 | 0.17422 | 0.16696 | 0.10947 | 0.35772 | 0.08681 | 0.4958 | 0.19127 | 0.21686 | 0.2255 |

| 10.0 | 0.23407 | 0.16914 | 0.22713 | 0.35621 | 0.16178 | 0.41664 | 0.19113 | 0.2156 | 0.29717 | 0.33247 |

| 20.0 | 0.1742 | 0.29018 | 0.20767 | 0.1932 | 0.24271 | 0.26686 | 0.25678 | 0.33323 | 0.18261 | 0.19007 |

| 30.0 | 0.22876 | 0.207 | 0.25078 | 0.23767 | 0.1589 | 0.27474 | 0.22616 | 0.23896 | 0.26088 | 0.21971 |

| 40.0 | 0.19998 | 0.33247 | 0.20128 | 0.21318 | 0.33009 | 0.19396 | 0.19755 | 0.24664 | 0.26132 | 0.20757 |

| 50.0 | 0.28003 | 0.20392 | 0.24416 | 0.27681 | 0.23747 | 0.22916 | 0.2082 | 0.26936 | 0.28377 | 0.24765 |

| 60.0 | 0.24546 | 0.26397 | 0.1694 | 0.22919 | 0.30974 | 0.21996 | 0.30135 | 0.17942 | 0.25639 | 0.24169 |

| 70.0 | 0.31296 | 0.30373 | 0.25255 | 0.2594 | 0.20671 | 0.27408 | 0.22224 | 0.31924 | 0.24673 | 0.21597 |

| 80.0 | 0.17724 | 0.26313 | 0.31513 | 0.31625 | 0.3022 | 0.27599 | 0.29645 | 0.29595 | 0.30177 | 0.25592 |

| 100.0 | 0.24785 | 0.22264 | 0.30234 | 0.26556 | 0.25047 | 0.22892 | 0.26496 | 0.29359 | 0.26225 | 0.23468 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.46524 | 0.26082 | 0.09562 | 0.06011 | 0.22983 | 0.39976 | 0.30458 | 0.13181 | 0.18388 | 0.25082 |

| 10.0 | 0.17284 | 0.20117 | 0.3119 | 0.30915 | 0.22881 | 0.35113 | 0.21611 | 0.13166 | 0.25941 | 0.40807 |

| 20.0 | 0.19442 | 0.33427 | 0.26518 | 0.27009 | 0.42634 | 0.41446 | 0.30116 | 0.24349 | 0.2261 | 0.27423 |

| 30.0 | 0.2011 | 0.20876 | 0.2626 | 0.19334 | 0.22225 | 0.23346 | 0.2429 | 0.24898 | 0.27363 | 0.20823 |

| 40.0 | 0.2311 | 0.34546 | 0.25111 | 0.24477 | 0.29111 | 0.25195 | 0.27549 | 0.24954 | 0.21513 | 0.24344 |

| 50.0 | 0.23163 | 0.2508 | 0.26653 | 0.20321 | 0.31153 | 0.17853 | 0.27125 | 0.21135 | 0.29256 | 0.2654 |

| 60.0 | 0.21494 | 0.27849 | 0.2021 | 0.22757 | 0.25238 | 0.16156 | 0.21941 | 0.24322 | 0.28535 | 0.23635 |

| 70.0 | 0.27855 | 0.22575 | 0.23314 | 0.22183 | 0.23489 | 0.18998 | 0.33158 | 0.25334 | 0.28715 | 0.28165 |

| 80.0 | 0.23626 | 0.29525 | 0.30193 | 0.23072 | 0.23674 | 0.32832 | 0.23382 | 0.25863 | 0.27138 | 0.19795 |

| 100.0 | 0.26369 | 0.32682 | 0.30756 | 0.24321 | 0.26807 | 0.23514 | 0.19329 | 0.2767 | 0.25295 | 0.25559 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.23511 | 0.63382 | 0.30163 | 0.27145 | 0.33483 | 0.29068 | 0.31205 | 0.14248 | 0.22591 | 0.13192 |

| 10.0 | 0.29268 | 0.26947 | 0.35273 | 0.15656 | 0.2808 | 0.23345 | 0.19294 | 0.32046 | 0.24477 | 0.24394 |

| 20.0 | 0.2649 | 0.32829 | 0.25628 | 0.13416 | 0.29653 | 0.17345 | 0.301 | 0.24853 | 0.12218 | 0.29888 |

| 30.0 | 0.29328 | 0.26628 | 0.26931 | 0.20818 | 0.20802 | 0.26592 | 0.26207 | 0.23439 | 0.24637 | 0.20254 |

| 40.0 | 0.27224 | 0.21554 | 0.1586 | 0.21342 | 0.32507 | 0.20538 | 0.18645 | 0.29231 | 0.25991 | 0.27705 |

| 50.0 | 0.22651 | 0.22816 | 0.24038 | 0.23038 | 0.28705 | 0.2296 | 0.30208 | 0.25716 | 0.26195 | 0.23077 |

| 60.0 | 0.25489 | 0.19356 | 0.22501 | 0.27224 | 0.31211 | 0.29716 | 0.26032 | 0.28369 | 0.21007 | 0.33378 |

| 70.0 | 0.18278 | 0.25305 | 0.26419 | 0.25636 | 0.18658 | 0.22269 | 0.24625 | 0.23036 | 0.20509 | 0.28054 |

| 80.0 | 0.2736 | 0.22592 | 0.24351 | 0.25999 | 0.23762 | 0.28325 | 0.22466 | 0.26881 | 0.28398 | 0.26469 |

| 100.0 | 0.2292 | 0.22844 | 0.23095 | 0.26149 | 0.29552 | 0.24155 | 0.23722 | 0.27286 | 0.25133 | 0.19801 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| N\Times | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

| 5.0 | 0.06806 | 0.44592 | 0.41001 | 0.15409 | 0.21887 | 9e-05 | 0.18994 | 0.39973 | 0.18855 | 0.09651 |

| 10.0 | 0.19207 | 0.23591 | 0.19644 | 0.44662 | 0.10864 | 0.28391 | 0.34642 | 0.2322 | 0.35164 | 0.1705 |

| 20.0 | 0.16664 | 0.19254 | 0.20003 | 0.21201 | 0.20014 | 0.18256 | 0.21404 | 0.20043 | 0.29808 | 0.23127 |

| 30.0 | 0.22289 | 0.26233 | 0.29315 | 0.23406 | 0.27225 | 0.29127 | 0.24693 | 0.17135 | 0.13765 | 0.18721 |

| 40.0 | 0.33129 | 0.23068 | 0.25797 | 0.26785 | 0.21751 | 0.24551 | 0.22702 | 0.30226 | 0.1966 | 0.2456 |

| 50.0 | 0.29751 | 0.32703 | 0.20611 | 0.27348 | 0.1994 | 0.28047 | 0.2896 | 0.20805 | 0.23767 | 0.21903 |

| 60.0 | 0.21918 | 0.15745 | 0.22815 | 0.24201 | 0.2485 | 0.22034 | 0.24098 | 0.24255 | 0.30854 | 0.24053 |

| 70.0 | 0.26148 | 0.27497 | 0.26839 | 0.24709 | 0.27284 | 0.19374 | 0.22679 | 0.27627 | 0.20358 | 0.27468 |

| 80.0 | 0.25249 | 0.23983 | 0.22669 | 0.19702 | 0.23014 | 0.24503 | 0.27669 | 0.26209 | 0.28405 | 0.19101 |

| 100.0 | 0.27304 | 0.27937 | 0.22242 | 0.23368 | 0.27092 | 0.27454 | 0.23199 | 0.26031 | 0.2234 | 0.21944 |

+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+---------+

+---------+---------+----------+

| N\Times | Mean | Variance |

+---------+---------+----------+

| 5 | 0.23009 | 0.01506 |

| 10 | 0.23917 | 0.00628 |

| 20 | 0.24419 | 0.0039 |

| 30 | 0.23817 | 0.00187 |

| 40 | 0.25145 | 0.00252 |

| 50 | 0.25343 | 0.00151 |

| 60 | 0.24989 | 0.00137 |

| 70 | 0.24811 | 0.00095 |

| 80 | 0.25177 | 0.00108 |

| 100 | 0.24964 | 0.00071 |

+---------+---------+----------+

#### TASK3

效果一般，预计需要将采样次数提高到1e3以上才能得到比较好的精度

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 30462.46 | 155168.3 | 188664.01 | 5969.63 | 86797.33 | 138380.74 | 10145.05 | 281619.38 | 260640.8 | 11385.99 |

| 20.0 | 121682.84 | 152050.73 | 29384.41 | 70435.42 | 88993.74 | 108378.48 | 155186.78 | 177283.85 | 36122.37 | 122183.5 |

| 30.0 | 92030.76 | 164379.77 | 136689.93 | 153578.73 | 93989.82 | 280631.99 | 121856.68 | 104661.04 | 78396.94 | 192873.31 |

| 40.0 | 50420.55 | 76782.3 | 76602.04 | 99078.43 | 51636.23 | 213636.05 | 70891.0 | 93725.61 | 195981.26 | 193376.59 |

| 50.0 | 108005.36 | 158441.17 | 158586.48 | 109478.41 | 145731.06 | 99330.32 | 81498.23 | 109628.38 | 72539.42 | 110316.76 |

| 60.0 | 130370.51 | 121093.54 | 83484.55 | 73183.46 | 99052.39 | 145269.22 | 70775.19 | 115357.78 | 124413.5 | 165368.23 |

| 70.0 | 153578.89 | 100938.3 | 48121.97 | 121091.28 | 90619.35 | 133297.97 | 75796.51 | 114307.43 | 44310.1 | 118773.57 |

| 80.0 | 117435.93 | 139109.59 | 129461.52 | 135640.44 | 121334.03 | 225840.58 | 150495.8 | 133711.69 | 119265.66 | 78427.42 |

| 100.0 | 96533.67 | 90242.3 | 90044.88 | 75071.38 | 132592.5 | 105506.83 | 119637.6 | 98691.38 | 126933.94 | 68104.85 |

| 200.0 | 98011.74 | 101172.43 | 102195.24 | 109884.5 | 100266.06 | 145987.71 | 88590.07 | 89325.81 | 121406.37 | 117862.59 |

| 500.0 | 106189.86 | 90758.07 | 119309.87 | 128775.05 | 112922.66 | 96440.88 | 130002.26 | 123546.39 | 112342.07 | 109539.48 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 330583.57 | 40296.16 | 178949.86 | 110591.11 | 119306.33 | 86858.8 | 11770.86 | 2669.04 | 67425.54 | 165614.83 |

| 20.0 | 82124.83 | 99836.05 | 71574.08 | 159027.5 | 160882.52 | 106358.41 | 40097.53 | 125051.81 | 17057.83 | 89844.12 |

| 30.0 | 27718.58 | 45464.58 | 138800.34 | 154535.55 | 38095.61 | 83651.84 | 74573.11 | 124608.62 | 51217.98 | 90468.67 |

| 40.0 | 138861.39 | 154225.33 | 69783.88 | 129541.46 | 96708.05 | 68933.22 | 79477.88 | 69843.97 | 91449.53 | 94106.38 |

| 50.0 | 94278.95 | 69480.69 | 131468.71 | 82321.37 | 87617.54 | 151498.88 | 108413.9 | 127266.85 | 104157.03 | 107098.16 |

| 60.0 | 171172.02 | 125608.6 | 122931.31 | 178899.07 | 152180.43 | 130991.0 | 74854.3 | 86724.1 | 157340.93 | 33134.03 |

| 70.0 | 126695.6 | 73323.43 | 168416.29 | 144963.81 | 52839.51 | 105261.6 | 88552.57 | 109759.94 | 143336.24 | 71381.22 |

| 80.0 | 85309.83 | 90623.4 | 138543.69 | 46045.03 | 63623.81 | 135057.82 | 113755.2 | 138507.21 | 94165.01 | 70461.82 |

| 100.0 | 137996.62 | 96303.4 | 98884.16 | 92058.06 | 149187.7 | 130305.46 | 83459.0 | 129295.12 | 104278.55 | 106984.63 |

| 200.0 | 101590.8 | 112941.3 | 130955.62 | 92913.48 | 126359.03 | 109624.35 | 78585.2 | 77344.69 | 139360.35 | 95627.14 |

| 500.0 | 117309.14 | 102518.56 | 118350.84 | 137095.88 | 129407.93 | 107512.86 | 109199.37 | 128409.23 | 109990.73 | 109422.52 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 55295.75 | 11390.33 | 40530.61 | 223011.51 | 20372.08 | 33980.92 | 47854.12 | 54865.01 | 234338.23 | 139727.18 |

| 20.0 | 58546.11 | 50792.42 | 94732.95 | 26275.24 | 92776.33 | 11956.67 | 133075.83 | 245466.2 | 98444.35 | 33637.64 |

| 30.0 | 121807.92 | 61638.51 | 53364.11 | 107521.37 | 78918.55 | 160908.07 | 87768.33 | 209743.39 | 33338.18 | 106742.64 |

| 40.0 | 148950.42 | 161501.99 | 119770.24 | 120958.99 | 36421.65 | 70681.9 | 82040.34 | 64750.21 | 189358.21 | 15094.69 |

| 50.0 | 100697.8 | 165823.48 | 108694.53 | 117221.59 | 144641.82 | 99012.71 | 91619.36 | 151013.83 | 54113.69 | 92173.94 |

| 60.0 | 114490.04 | 200029.98 | 52220.89 | 110271.37 | 75453.96 | 79051.35 | 176469.96 | 80018.94 | 94731.05 | 84869.23 |

| 70.0 | 125927.91 | 177250.89 | 95762.67 | 88531.11 | 137591.89 | 132012.69 | 83652.47 | 121560.28 | 72885.99 | 118113.88 |

| 80.0 | 82216.1 | 136703.73 | 79144.0 | 90548.59 | 90516.54 | 134438.89 | 134638.92 | 111992.53 | 120300.32 | 61491.6 |

| 100.0 | 116603.52 | 171486.34 | 136819.43 | 146663.51 | 102375.9 | 68224.43 | 133715.7 | 151323.23 | 175441.14 | 133512.66 |

| 200.0 | 151164.1 | 103489.5 | 103629.78 | 115487.01 | 112405.95 | 107481.85 | 124436.07 | 116351.89 | 57253.72 | 109107.21 |

| 500.0 | 105344.44 | 90673.45 | 106460.45 | 129468.78 | 103304.8 | 121628.7 | 110921.33 | 133978.0 | 123021.52 | 94737.98 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 16852.23 | 35190.22 | 32445.4 | 210681.89 | 111718.3 | 64735.62 | 61424.54 | 36284.07 | 309480.61 | 112186.68 |

| 20.0 | 39004.12 | 34107.54 | 112704.75 | 75127.55 | 97049.14 | 56801.73 | 63225.52 | 309822.88 | 209988.58 | 167092.66 |

| 30.0 | 81027.79 | 103066.2 | 181804.42 | 43669.45 | 76932.56 | 54928.79 | 44830.23 | 171901.57 | 227913.08 | 115826.6 |

| 40.0 | 104882.64 | 163834.85 | 154850.11 | 103509.78 | 153613.3 | 111086.26 | 128511.63 | 161958.55 | 119360.71 | 60066.85 |

| 50.0 | 121179.23 | 111840.08 | 89342.01 | 107563.76 | 127867.83 | 90721.93 | 125780.93 | 44233.74 | 90868.97 | 62243.76 |

| 60.0 | 98264.97 | 119342.4 | 74600.84 | 126954.85 | 38358.07 | 118295.14 | 77328.8 | 102653.88 | 147711.7 | 69411.38 |

| 70.0 | 122624.27 | 146951.05 | 121537.11 | 78402.46 | 99271.17 | 94592.17 | 76131.87 | 115925.6 | 106922.31 | 80269.79 |

| 80.0 | 110561.14 | 121290.63 | 42070.79 | 97241.88 | 163872.48 | 103454.04 | 131585.47 | 99438.37 | 134629.82 | 113046.57 |

| 100.0 | 117727.95 | 112857.25 | 82469.39 | 92638.97 | 100871.93 | 112926.6 | 74538.35 | 141462.46 | 83962.8 | 95030.31 |

| 200.0 | 102796.68 | 117543.51 | 86829.37 | 129407.17 | 117720.52 | 96140.93 | 48421.39 | 95323.24 | 118432.38 | 115483.01 |

| 500.0 | 117692.27 | 122404.85 | 102523.19 | 125470.28 | 81482.14 | 120291.82 | 109147.13 | 114177.4 | 119973.95 | 113172.27 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 55523.23 | 12892.03 | 118244.4 | 20197.71 | 152809.01 | 14582.89 | 64239.3 | 2604.68 | 133292.22 | 25923.83 |

| 20.0 | 167636.35 | 156502.05 | 100942.38 | 52024.31 | 133650.37 | 105079.39 | 36975.66 | 275187.56 | 37519.68 | 234235.21 |

| 30.0 | 78979.03 | 74350.93 | 62981.05 | 117076.86 | 56042.91 | 141801.75 | 83932.79 | 67797.09 | 110715.34 | 65585.22 |

| 40.0 | 67375.16 | 141150.52 | 198803.35 | 52137.51 | 160417.47 | 179156.69 | 75008.62 | 171311.52 | 42016.06 | 104527.52 |

| 50.0 | 107642.77 | 155343.22 | 100097.86 | 190443.04 | 158237.68 | 84040.41 | 116323.34 | 101671.3 | 101035.8 | 143634.62 |

| 60.0 | 110440.98 | 117696.26 | 135418.62 | 123640.81 | 110115.9 | 160275.56 | 102310.17 | 173354.69 | 157225.95 | 137545.25 |

| 70.0 | 122709.54 | 102213.1 | 33939.05 | 66328.59 | 59392.28 | 159530.46 | 82379.04 | 65705.16 | 172168.41 | 108621.9 |

| 80.0 | 78256.68 | 109555.03 | 136861.48 | 131256.67 | 104530.86 | 154953.49 | 162078.4 | 83723.61 | 110079.75 | 131144.1 |

| 100.0 | 142756.13 | 105163.34 | 99495.15 | 136852.06 | 117643.31 | 116023.85 | 140396.93 | 111858.89 | 107276.45 | 126086.41 |

| 200.0 | 117471.18 | 113675.25 | 92663.95 | 116712.48 | 115896.29 | 108041.47 | 83286.71 | 131947.3 | 127674.32 | 82465.71 |

| 500.0 | 131313.02 | 113133.51 | 105985.99 | 109705.78 | 97149.66 | 116190.58 | 105044.75 | 81983.73 | 108682.96 | 87015.3 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 254458.3 | 142282.91 | 168025.7 | 3282.39 | 164379.77 | 101408.08 | 54156.92 | 128909.59 | 11954.53 | 234254.88 |

| 20.0 | 88001.7 | 69218.66 | 98602.07 | 143053.06 | 104826.43 | 49947.41 | 194752.15 | 126507.51 | 197825.73 | 77885.35 |

| 30.0 | 146495.62 | 47664.68 | 244518.46 | 15739.87 | 188188.52 | 72016.88 | 143807.3 | 86359.73 | 33561.86 | 57829.45 |

| 40.0 | 149619.23 | 94298.5 | 176743.83 | 212299.56 | 90695.05 | 192757.13 | 87655.12 | 66118.12 | 120314.22 | 67397.01 |

| 50.0 | 152497.6 | 85501.6 | 180583.55 | 47281.95 | 74840.06 | 91477.7 | 141579.93 | 94666.37 | 91814.68 | 57030.32 |

| 60.0 | 105350.64 | 137738.76 | 121617.1 | 141205.6 | 136691.38 | 154109.48 | 117348.68 | 139674.5 | 99845.48 | 70951.21 |

| 70.0 | 95423.45 | 193311.75 | 71534.01 | 98279.56 | 143415.94 | 130608.32 | 104606.45 | 133335.73 | 113181.67 | 128395.31 |

| 80.0 | 167646.79 | 96075.66 | 164512.12 | 70258.09 | 152184.87 | 135747.61 | 189050.79 | 116172.4 | 89084.08 | 174693.92 |

| 100.0 | 105456.37 | 95052.95 | 141024.65 | 110167.32 | 137825.31 | 116214.68 | 118743.4 | 85057.99 | 81262.42 | 168919.43 |

| 200.0 | 98759.05 | 139236.08 | 124049.44 | 97944.43 | 107260.85 | 98080.04 | 126544.3 | 132672.03 | 93615.66 | 137567.24 |

| 500.0 | 97597.18 | 120599.71 | 125560.59 | 107026.88 | 120844.17 | 89936.0 | 125225.83 | 140364.82 | 119879.98 | 117266.05 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 89431.36 | 150473.58 | 46396.16 | 30504.64 | 215383.55 | 69114.48 | 51301.89 | 124640.1 | 94054.51 | 191556.1 |

| 20.0 | 29796.48 | 220832.94 | 103413.17 | 95730.86 | 204984.89 | 66915.3 | 153506.54 | 91185.27 | 98777.71 | 54342.99 |

| 30.0 | 91567.91 | 158066.06 | 86929.96 | 130006.33 | 172562.72 | 186420.24 | 184620.26 | 99213.86 | 114605.11 | 73578.39 |

| 40.0 | 66353.2 | 72890.16 | 47139.17 | 113902.17 | 96653.05 | 94613.97 | 118098.01 | 144717.6 | 59128.42 | 203237.59 |

| 50.0 | 173679.86 | 48939.15 | 87218.81 | 131863.64 | 64381.93 | 68455.97 | 136425.95 | 69535.08 | 37050.54 | 77753.86 |

| 60.0 | 148798.5 | 71338.46 | 53216.78 | 102259.83 | 139066.23 | 88833.73 | 182409.89 | 127548.57 | 65106.19 | 202392.68 |

| 70.0 | 155324.11 | 112596.38 | 63502.62 | 89060.11 | 151066.5 | 92989.67 | 89275.95 | 159019.03 | 68234.02 | 58009.28 |

| 80.0 | 119306.52 | 96218.85 | 92448.43 | 98897.03 | 130841.41 | 88394.68 | 207306.27 | 110349.07 | 102757.4 | 102953.7 |

| 100.0 | 151855.4 | 90442.22 | 118784.52 | 127677.51 | 120705.29 | 94783.26 | 91541.67 | 122930.63 | 104892.31 | 101646.68 |

| 200.0 | 133415.41 | 111419.26 | 92445.2 | 150286.22 | 103406.02 | 93873.86 | 139225.94 | 130406.07 | 133468.46 | 78257.59 |

| 500.0 | 137188.56 | 98882.98 | 117615.31 | 113258.33 | 111531.57 | 116771.31 | 121276.04 | 108554.68 | 92620.0 | 105681.59 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 358231.09 | 10397.82 | 128671.25 | 22958.74 | 11004.71 | 155176.86 | 308912.6 | 105149.34 | 289140.45 | 374315.04 |

| 20.0 | 174276.94 | 83933.11 | 49994.7 | 125095.13 | 64987.35 | 75702.29 | 57343.3 | 65526.31 | 124208.04 | 152819.1 |

| 30.0 | 140603.83 | 159257.63 | 63270.88 | 74573.3 | 79376.17 | 117100.3 | 85979.11 | 74037.86 | 224070.23 | 84270.9 |

| 40.0 | 125826.26 | 91835.24 | 44415.85 | 62418.28 | 178427.85 | 45983.25 | 148326.45 | 17635.45 | 108587.18 | 173800.81 |

| 50.0 | 150310.61 | 61548.26 | 98994.41 | 93963.39 | 123144.24 | 111105.52 | 74303.44 | 108019.52 | 179305.15 | 110605.52 |

| 60.0 | 158179.69 | 112371.46 | 151320.49 | 69598.75 | 102053.49 | 109718.74 | 77567.4 | 130344.54 | 97194.67 | 188841.04 |

| 70.0 | 126373.88 | 57571.43 | 105695.98 | 110200.79 | 194672.83 | 96951.58 | 108734.21 | 121956.42 | 87806.91 | 163483.94 |

| 80.0 | 151239.2 | 102417.45 | 119056.0 | 115013.63 | 137399.54 | 139720.28 | 92775.65 | 137548.12 | 197968.68 | 120522.93 |

| 100.0 | 73260.0 | 91380.2 | 90853.82 | 107489.62 | 96104.12 | 132812.04 | 78616.17 | 109264.48 | 124839.45 | 102212.26 |

| 200.0 | 125299.87 | 130627.59 | 83774.83 | 111484.14 | 117798.12 | 107677.17 | 127891.87 | 84460.02 | 95171.84 | 144109.61 |

| 500.0 | 129814.46 | 123585.72 | 133285.93 | 115649.26 | 119208.54 | 113749.35 | 87301.58 | 103433.82 | 143320.52 | 107656.4 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 193422.77 | 120152.43 | 225429.05 | 98302.96 | 3253.92 | 265748.04 | 83746.08 | 83369.15 | 108115.54 | 7732.33 |

| 20.0 | 85519.09 | 86202.64 | 76207.87 | 122113.34 | 144524.68 | 92914.09 | 36954.61 | 160566.55 | 70479.31 | 89516.47 |

| 30.0 | 145815.46 | 116936.43 | 80487.65 | 161174.92 | 34321.74 | 80885.47 | 31874.97 | 132915.95 | 159088.2 | 236426.73 |

| 40.0 | 67141.39 | 21348.6 | 128301.33 | 70861.05 | 197706.63 | 229752.41 | 95654.72 | 105905.26 | 108157.09 | 114779.85 |

| 50.0 | 57172.34 | 95628.64 | 85239.71 | 111811.4 | 110583.96 | 57729.67 | 81283.1 | 94246.42 | 91754.77 | 114230.74 |

| 60.0 | 55794.36 | 172843.43 | 162454.07 | 127854.09 | 42398.09 | 105752.51 | 57602.11 | 62172.63 | 134554.5 | 74425.96 |

| 70.0 | 98350.2 | 159293.59 | 152226.63 | 102075.56 | 144686.31 | 98492.08 | 98023.14 | 136967.02 | 150294.69 | 70536.86 |

| 80.0 | 146314.32 | 116767.31 | 123365.2 | 73608.09 | 81873.1 | 133249.31 | 132486.67 | 82037.3 | 139042.59 | 84707.93 |

| 100.0 | 86829.85 | 172277.28 | 48938.4 | 98918.5 | 76223.68 | 130037.85 | 133423.1 | 159658.06 | 138370.69 | 80417.06 |

| 200.0 | 93971.69 | 95395.62 | 132930.25 | 123807.31 | 108234.83 | 102078.36 | 82675.06 | 132139.92 | 103715.82 | 109063.09 |

| 500.0 | 128966.94 | 118336.45 | 136319.12 | 106351.69 | 110083.65 | 85055.66 | 104977.38 | 112393.98 | 115859.84 | 115744.15 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| N\Times | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

| 10.0 | 157576.05 | 330179.43 | 39136.11 | 49373.77 | 6785.94 | 71154.21 | 117736.77 | 210546.07 | 61567.86 | 107417.05 |

| 20.0 | 79439.43 | 210308.86 | 35644.6 | 22783.95 | 120395.65 | 64862.44 | 101316.61 | 64692.09 | 86217.38 | 46691.38 |

| 30.0 | 71896.32 | 165734.76 | 170590.7 | 226472.43 | 139307.51 | 182937.35 | 104051.02 | 389484.45 | 210359.86 | 279383.45 |

| 40.0 | 70509.7 | 131080.45 | 193241.92 | 83438.07 | 41243.59 | 156376.33 | 91808.66 | 107442.43 | 84587.74 | 113084.87 |

| 50.0 | 54604.18 | 81324.54 | 124161.75 | 99409.28 | 103386.74 | 192038.58 | 101224.69 | 28288.46 | 188438.73 | 91280.36 |

| 60.0 | 197339.04 | 106507.6 | 142550.18 | 142033.11 | 188116.82 | 76996.44 | 156912.79 | 148364.45 | 61537.63 | 77856.08 |

| 70.0 | 122908.38 | 111360.69 | 101630.33 | 100371.86 | 94419.84 | 81172.25 | 164254.41 | 204470.47 | 121508.58 | 138566.41 |

| 80.0 | 130727.67 | 76229.69 | 127878.64 | 166556.34 | 188614.16 | 196646.08 | 159775.01 | 109368.06 | 157589.53 | 178644.96 |

| 100.0 | 73072.42 | 138063.67 | 177164.82 | 187004.11 | 83673.97 | 74111.03 | 39280.32 | 82166.64 | 113991.99 | 111790.67 |

| 200.0 | 102099.72 | 129588.06 | 180223.27 | 117724.85 | 88634.83 | 130403.5 | 94213.01 | 81430.32 | 116789.05 | 130074.7 |

| 500.0 | 90307.4 | 115634.75 | 113248.57 | 106183.35 | 126293.8 | 112835.88 | 124092.29 | 129629.06 | 104987.81 | 133283.43 |

+---------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+-----------+

+---------+-----------+---------------+

| N\Times | Mean | Variance |

+---------+-----------+---------------+

| 10 | 111666.47 | 8723987897.22 |

| 20 | 103652.82 | 3453809652.13 |

| 30 | 117875.77 | 4120553019.05 |

| 40 | 110624.79 | 2487639287.33 |

| 50 | 105599.99 | 1246935771.0 |

| 60 | 116275.17 | 1571408606.17 |

| 70 | 111304.98 | 1214793844.67 |

| 80 | 121124.81 | 1218972642.96 |

| 100 | 111835.47 | 809211854.25 |

| 200 | 110641.66 | 428913397.16 |

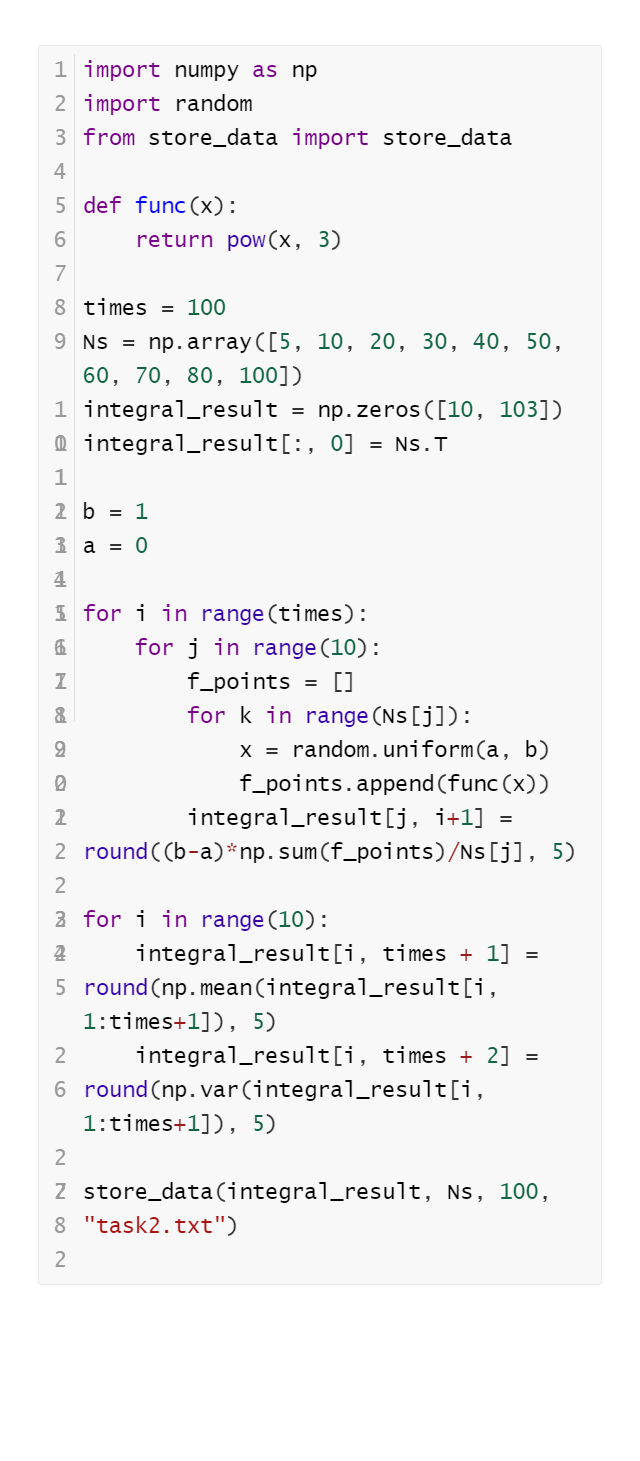
| 500 | 113563.96 | 179154935.34 |

+---------+-----------+---------------+

## TASK1

##### task1

##### TASK2



##### TASK3

