DECEMBER 1, 1916.

FOREIGN EXCHANGE RATES QUOTED IN NEW YORK DURING THE PERIOD 1914–1916.

Below are shown monthly ranges of rates of foreign exchange quoted in New York City on leading European, South American, and oriental money centers for the years 1914 to 1916. Quotations for the past two years were taken chiefly from the Commercial and Financial Chronicle's 1916 financial review, while those for 1916 were based upon daily quotations kindly furnished by the National City Bank and Messrs. Knauth, Nachod & Kuhne, of New York City. In addition, the New York Journal of Commerce was used for compiling the monthly ranges of exchange rates on oriental centers for the earlier period. The rates given are in nearly all cases those for sight drafts, bankers' checks, or demand bills, except in the case of exchange on London, for which monthly ranges of rates for both sight drafts or demand bills and 60-day bankers' bills are given. The rates in most cases are expressed in terms of United States currency.

Thus, for example, the May, 1915, quotation of $475\frac{2}{3}$ against London indicates that this amount of dollars had to be paid in New York for a 60-day bankers' bill of £100 payable in London. Similarly, the May, 1915, quotation of 39 against Petrograd denotes that a sight draft of 100 rubles payable in the Russian

capital could be purchased in New York on that date for \$39. The quotation of $82\frac{5}{16}$ against Berlin shows the equivalent of 400 marks, this being the customary mode of quoting exchange on Berlin. Exchange on Paris, Milan, and Zurich, Switzerland, is quoted in terms of foreign currency, and declines in exchange, i. e., in the value of the foreign currency, are indicated by increases in the number of the foreign money units which can be purchased by \$1 or \$100.

A comparison of the par rates of exchange with the rates actually quoted indicates to some extent the various rates of depreciation which European currencies, especially those of the belligerent countries, underwent in neutral markets since the outbreak of the world war. Based upon the official equivalents of the foreign money units as quoted by the United States Director of the Mint, the par rates of exchange on the several centers are as follows: London, \$4.8665; Paris, Milan, and Zurich, 518 francs per \$100; Berlin, \$95.20 per 400 marks; Petrograd, \$51.50 per 100 rubles; Amsterdam, \$40.20 per 100 florins; Copenhagen, \$26.80 per 100 kroner; Buenos Aires, \$42.46 per 100 paper pesos; Rio de Janeiro, \$32.42 per 100 milreis; Hongkong,^a \$46.10 per \$100 Mex.; Shanghai,^a \$64.10 per 100 Shanghai taels; Yokohama, \$49.80 per 100 yen.

^aAverage of 4 quarterly quotations of the U.S. Director of the Mint during 1913-1914.

| | January. | | | | | | | February. | | | | | | |
|--|--|---|--|---|---|--|---|--|------|--|---|--|--|--|
| | 1914 | | 1915 | | 1916 | | 1914 | | 1915 | | 1916 | | | |
| | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day bankers' bills, dol- lars. Sight drafts. Paris. Paris. Petrograd. Milan. Copenhagen. Copenhagen. Copenhagen. Surich. Buenos Aires. Buenos Aires | $\begin{array}{c} 4.815\\ 4.855\\ 520 \$\\ 9414\\ 512\\ 402\\ 402\\ 26.68\\ 5212\\ 5213\\ 402\\ 462\\ 68\\ 5212\\ 64\\ 493\\ 64\\ 493\\ \end{array}$ | 4. 8384 4. 8695 5183 95 5193 4074 26. 88 5183 4074 26. 88 5183 473 473 473 473 493 | 4.814 4.834 520 865 425 542 4015 2415 5292 | 4.834 4.855 5164 883 434 5324 25 5224 55224 | $\begin{array}{c} 4.\ 69^{3}_{4}\\ 4.\ 73^{3}_{588}\\ 588\\ 29.\ 32\\ 677^{1}_{2}\\ 274\\ 524\\ 42^{1}_{4}\\ 524\\ 41_{6}\\ 35\\ 61^{1}_{4}\\ 50^{3}_{8} \end{array}$ | 4. 74 4. 78 583 76‡ 30 655 454 27. 90 513 424 234 234 47. 60 634 502 | 4. 8355 4. 8535 5183 9414 512 401 26. 82 5183 401 26. 82 5183 401 26. 82 5183 401 26. 82 5183 401 26. 82 5183 401 26. 82 5183 401 26. 82 518 518 51 51 20 8 51 51 51 51 51 51 51 51 51 51 51 51 51 | 4. 8425 4. 859 5183 9545 5145 5195 404 26. 83 5183 404 26. 83 5183 404 464 645 645 645 49. 95 | 1 | 4. 83 4. 84 5.18 87 443 540 407 24 529 | $\begin{array}{c} 4.\ 71\frac{1}{4}\\ 4.\ 75\frac{3}{4}\\ 591\\ 73\\ 29\frac{3}{6}\\ 676\\ 41\frac{7}{4}\\ 524\\ 42\\ 22\frac{1}{4}\\ 46.\ 20\\ 63\\ 50\frac{1}{3}\\ \end{array}$ | $\begin{array}{c} 4.72 \\ 4.76 \\ 5.85 \\ 5.85 \\ 7.7 \\ 3.2 \\ 669 \\ 4.2 \\ 2.8 \\ 4.4.45 \\ 2.3 \\ 46.83 \\ 46.83 \\ 50 \\ 8 \end{array}$ | | |

Monthly ranges of exchange rates on leading foreign money centers quoted in New York City during the years 1914 to 1916

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FEDERAL RESERVE BULLETIN.

Monthly ranges of exchange rates on leading foreign money centers quoted in New York City during the years 1914 to 1916—Continued.

| <u></u> | March. | | | | | | | April. | | | | | | |
|---|--|---|---|---|---|--|--|---|--|---|---|--|--|--|
| | 1914 | | 1915 | | 1916 | | 1914 | | 1915 | | 1916 | | | |
| | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day bankers' bills, dol- lars | $\begin{array}{c} 402 \\ 26.80 \\ 518 \\ 3 \\ 4 \end{array}$ | $\begin{array}{c} 4.89\\ 4.867\\ 517_{3}\\ 95_{4}\\ 518_{3}\\ 40_{4}\\ 26.86\\ 517_{2}\\ \end{array}$ | $\begin{array}{c} 4.\ 76\frac{1}{2}\\ 4.\ 78\frac{1}{2}\\ 533\\ 81\frac{1}{3}\\ 44\frac{1}{2}\\ 594\\ 39\frac{1}{2}\\ 24\frac{1}{5}\\ 552\frac{1}{2}\\ \end{array}$ | $\begin{array}{c} 4.\ 79\frac{1}{2}\\ 4.\ 81\frac{1}{4}\\ 526\\ 84\frac{1}{2}\\ 44\frac{1}{2}\\ 565\\ 40\\ 25\frac{1}{2}\\ 535\\ \end{array}$ | $\begin{array}{c} 4.72\\ 4.7516\\ 5973\\ 7711\\ 315\\ 6705\\ 424\\ 27.90\\ 5241\\ 424\\ 424\\ 424\\ 424\\ 424\\ 424\\ 424\\ $ | 4. 723 4. 763 5874 738 650 423 29 521 428 238 493 | $\begin{array}{c} \textbf{4.8475}\\ \textbf{4.8475}\\ \textbf{4.862}\\ \textbf{5172}\\ \textbf{955}\\ \textbf{517r}\\ \textbf{5193}\\ \textbf{40rc}\\ \textbf{26.84}\\ \textbf{5172}\\ \textbf{.}\\ $ | $\begin{array}{c} \textbf{4.855}\\ \textbf{4.875}\\ \textbf{515}\\ \textbf{95}\\ \textbf{515}\\ \textbf{517}\\ \textbf{517}\\ \textbf{40}\\ \textbf{7c}\\ \textbf{26.88}\\ \textbf{516}\\ \textbf{1}\\ \textbf{.}\\ \textbf{.}$ | 4.765 4.785 532 817 413 5883 397 25.25 5383 25.25 5383 44.45 | $\begin{array}{c} 4.77\frac{1}{2}\\ 4.80\\ 531\frac{3}{4}\\ 82\frac{3}{4}\\ 44\frac{3}{5}\\ 577\\ 39\frac{1}{2}\\ 25.75\\ 532\frac{1}{4}\\ \end{array}$ | $\begin{array}{c} 4.723\\ 4.7675\\ 6073\\ 714\\ 30.20\\ 6654\\ 42\\ 28.40\\ 5213\\ 424\\ 424\\ 424\\ 424\\ 473\\ 475\\ 475\\ 475\\ 475\\ 475\\ 475\\ 475\\ 475$ | $\begin{array}{c} 4.\ 73\\ 4.\ 76\\ 59\\ 76\\ 76\\ 33\\ 43\\ 30.\ 2\\ 51\\ 42\\ 2\\ 56\end{array}$ | | |
| Yokohamado | $\begin{array}{c c} 63\frac{1}{2} \\ 49.75 \end{array}$ | 63 <u>5</u> 49.95 | | | 63 501 | 67 <u>1</u> 50 1 | | | 56 1 493 | 57 49 3 | | 70 50] | | |
| | May. | | | | | | | June. | | | | | | |
| | 1914 | | 1915 | | 1916 | | 1914 | | 1915 | | 1916 | | | |
| | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day bankers' bills, dol- lars. Sight draftsdollars. Paris. Petrograd. Amsterdam. Copenhagen. Zurich. Buenos Aires. dollars. dollars. francs. dollars. francs. dollars. francs. dollars. francs. dollars. francs. dollars. dollars. dollars. francs. dollars. dollars. dollars. dollars. francs. dollars. do | 951 511 5171 5171 40.5 | 4. 861 4. 889 515 953 517 5163 405 26. 88 5155 | $\begin{array}{c} 4.75 \\ 4.78 \\ 543 \\ 827 \\ 827 \\ 39 \\ 592 \\ 397 \\ 25.75 \\ 533 \\ 4 \end{array}$ | $\begin{array}{c} 4.\ 77\frac{5}{8}\\ 4.\ 80\\ 531\frac{1}{2}\\ 83\frac{1}{4}\\ 575\frac{1}{2}\\ 575\frac{1}{2}\\ 25.\ 95\\ 529\frac{1}{2}\end{array}$ | $\begin{array}{c} 4.72\\ 4.75\frac{3}{5}\\ 594\frac{1}{2}\\ 75\\ 30.60\\ 647\\ 41\\ 29.70\\ 524\frac{1}{4}\\ 42\end{array}$ | $\begin{array}{c} 4.73\\ 4.76\frac{1}{4}\\ 591\frac{8}{5}\\ 78\frac{1}{5}\\ 620\\ 41\frac{7}{3}\\ 30.80\\ 518\\ 42.32\end{array}$ | $\begin{array}{c} \textbf{4.8575}\\ \textbf{4.8755}\\ \textbf{5161}\\ \textbf{958}\\ \textbf{5173}\\ \textbf{4036}\\ \textbf{26.82}\\ \textbf{5163} \end{array}$ | $\begin{array}{c} \textbf{4.867} \\ \textbf{4.891} \\ \textbf{515} \\ \textbf{515} \\ \textbf{517} \\ \textbf{517} \\ \textbf{5164} \\ \textbf{40} \\ \textbf{75} \\ \textbf{26.90} \\ \textbf{515} \end{array}$ | $\begin{array}{c} 4.\ 72\frac{1}{4}\\ 4.\ 75\frac{3}{4}\\ 568\\ 81\\ 38\\ 616\\ 39\frac{1}{2}\\ 25.\ 95\\ 543\\ \end{array}$ | $\begin{array}{c} 4.\ 75_4^3\\ 4.\ 78_7^8\\ 543_7^8\\ 82_7^8\\ 82_7^8\\ 30_7^4\\ 590_7^3\\ 30_7^4\\ 30_7^4\\ 30_7^4\\ 26.\ 42\\ 526\\ .\end{array}$ | $\begin{array}{c} 4.72\\ 4.75\frac{11}{592}\\ 592\\ 30.30\\ 641\frac{1}{5}\\ 28\\ 531\\ 42.15\\ \end{array}$ | $\begin{array}{c} 4.\ 724\\ 4.\ 75\\ 590\\ 774\\ 30.\ 80\\ 635\\ 411\\ 30.\ 10\\ 523\\ 42.\ 25\end{array}$ | | |
| Rio de Janeirodo Hongkongdo Shanghaido Yokohamado | 463 64 49.75 | 48. 85 64 3 49. 90 | 44.30 56 ¹ / ₂ 49 ³ / ₈ | 44.60 57 49 3 | 23 51 72 50 1 8 | 24 <u>4</u> 56. 25 80 1 50 3 | 46. 20 63 1 49. 90 | 46.90 64 49.90 | 43 56 49 3 | 44.30 56½ 49.40 | 23. 87 49 70 503 | 24. 50 51 72 50 | | |
| | | | Ju | ily. | <u> </u> | August. | | | | | | | | |
| | 1914 | | 1915 | | 19 | 16 | 1914 | | 1915 | | 19 | 16 | | |
| | Low. | High. | Low. | High. | Low. | Hiigh. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day bankers' bills, dol- lars. Sight draftsdo Parisdollars. Berlindollars. Petrograddo. Milanlire. Amsterdamdollars. Copenhagendollars. Copenhagenfrancs. Buenos Airesdollars. | 4. 849 4. 869 5165 9575 51 5183 4073 26. 81 5165 | $\begin{array}{c} \textbf{4.88}\\ \textbf{5.50}\\ \textbf{460}\\ \textbf{96}\\ \textbf{51}_{\textbf{10}}\\ \textbf{490}\\ \textbf{411}\\ \textbf{272}\\ \textbf{465}\\ \\ \textbf{465} \end{array}$ | $\begin{array}{c} 4.\ 71\\ 4.\ 75\frac{3}{5}\\ 570\frac{1}{2}\\ 81\frac{1}{3}\\ 32\\ 641\\ 39\frac{1}{5}\\ 25.\ 65\\ 544\\ \end{array}$ | $\begin{array}{c} 4.73\frac{1}{2}\\ 4.77\frac{1}{8}\\ 553\frac{1}{2}\\ 82\frac{1}{38}\\ 82\frac{1}{38}\\ 606\\ 40\frac{1}{16}\\ 26.35\\ 535\end{array}$ | $\begin{array}{r} 4.71 \\ 4.7515 \\ 591 \\ 715 \\ 30.35 \\ 6493 \\ 415 \\ 28.05 \\ 530 \\ 41.39 \\ 0.41 \\ 0$ | 4. 72 4. 75 $\frac{1}{5}$ 590 $\frac{3}{4}$ 74 $\frac{1}{3}$ 30. 80 637 $\frac{3}{4}$ 41 $\frac{1}{16}$ 29. 10 528 42. 25 42. 25 | 4.94 513 95½ 51 500 40¾ 27號 | $5.56 \\ 510 \\ 97 \\ 51\frac{1}{8} \\ 490 \\ 42 \\ 27\frac{1}{2} \\$ | 4. 52 4. 55 1 603 80 831 653 39 8 25. 60 544 | $\begin{array}{c} 4.\ 71\frac{1}{4}\\ 4.\ 76\frac{1}{4}\\ 564\frac{1}{2}\\ 82\frac{1}{2}\\ 37\\ 623\\ 40\frac{1}{16}\\ 25.\ 90\\ 531\\ \end{array}$ | $\begin{array}{c} 4.71\frac{1}{2}\\ 4.75\frac{1}{16}\\ 592\\ 70\frac{3}{5}\\ 30.30\\ 649\\ 41_{1}^{3}e\\ 27.40\\ 529\frac{3}{4}\\ 41.30\\ 529\frac{3}{4}\\ 41.5\\ 529\frac{3}{4}\\ 529\frac{3}{4}\\ 41.5\\ 529\frac{3}{4}\\ 529\frac{3}$ | $\begin{array}{c} 4.71\frac{3}{4}\\ 4.75\frac{3}{5}\\ 589\\ 72\frac{3}{8}\\ 34\\ 646\frac{1}{4}\\ 41\frac{7}{4}\\ 28.70\\ 529\frac{1}{4}\\ 41.69\\ 529\frac{1}{4}\\ 41.69\\ 529\frac{1}{4}\\ 41.69\\ 529\frac{1}{5}\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 529\frac{1}{5}\\ 41.69\\ 529\frac{1}{5}\\ 529\frac{1}$ | | |
| Rio de Janeirodo Hongkongdo Shanghaido Yokohamado | 43. 60 59 49. 90 | 46. 45 64 49. 90 | 42. 70 56 493 | 43 56 49§ | 24. 40 47. 50 65. 50 503 | 24. 76 50 72 1 50 <u>2</u> | 47.15 64 49.75 | 47.85 64 3 49.75 | 42.30 53 491 | 42. 70 56 49 ³ / ₈ | $24.1550.257150_8^3$ | 24. 65 51. 75 73. 50 51 | | |

DECEMBER 1, 1916.

Monthly ranges of exchange rates on leading foreign money centers quoted in New York City during the years 1914 to 1916-Continued.

| | September. | | | | | | | October. | | | | | | |
|--|---|-------|--|--|--|---|---|---|---|--|--|---|--|--|
| | 1914 | | 1915 | | 1916 | | 1914 | | 1915 | | 1916 | | | |
| | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day.bankers' bills, dol- lars. Sight drafts. dollars. Paris. francs. Berlin. dollars. Petrograd. do. Milan lire. Amsterdam dollars. Copenhagen do. Zurich. francs. Buenos Aires. dollars. Rio de Janeiro. do. Shanghai. do. Yokohama. do. | | | $\begin{array}{c} 4. \ 49\\ 4. \ 50\\ 603\\ 80^{1}8\\ 34\\ 55. \ 55\\ 545\\ 40. \ 34\\ 22. \ 10\\ 42. \ 40\\ 52\frac{7}{49}\end{array}$ | $\begin{array}{c} 4.69\\ 4.73\\ 576\frac{1}{3}\\ 84\frac{1}{3}\\ 85\frac{1}{3}\\ 618\\ 40\frac{1}{3}\\ 25.95\\ 525\\ 41.55\\ 23.70\\ 43\frac{1}{3}\\ 56\\ 49\frac{1}{3}\\ \end{array}$ | $\begin{array}{c} 4.\ 71\frac{3}{9}\\ 4.\ 75\frac{3}{4}\\ 589\frac{1}{2}\\ 589\frac{1}{2}\\ 69\frac{1}{8}\\ 31.\ 60\\ 648\\ 40\frac{3}{2}\\ 26.\ 50\\ 533\frac{1}{4}\\ 41.\ 84\\ 23.\ 82\\ 533\frac{1}{5}\\ 51.\ 50\\ 8\\ 50\frac{1}{8}\\ \end{array}$ | $\begin{array}{c} 4.\ 71\frac{4}{2}\\ 4.\ 76\frac{4}{2}\\ 583\frac{4}{2}\\ 33.\ 75\\ 6425\\ 41\frac{4}{2}\\ 27.\ 75\\ 529\frac{4}{2}\\ 42.\ 29\\ 24.\ 29\\ 52.\ 75\\ 50\frac{4}{5}\\ 50\frac{4}{5}\\ \end{array}$ | 4.851 4.89 5151 88 48 531 40§ 518 | 4.94 4.98 505 941 48 517 422 503 | $\begin{array}{c} 4.58\\ 4.601\\ .598\\ .598\\ .33\\ 647\\ 403\\ 25.90\\ 25.90\\ 41.11\\ 23.11\\ 43.10\\ .552\\ .491\\ .4$ | $\begin{array}{c} 4.69 \\ 4.72 \\ 576 \\ 576 \\ 35 \\ 622 \\ 41 \\ 26.20 \\ 226.20 \\ 42 \\ 43 \\ 526 \\ 43 \\ 55 \\ 49 \\ 1 \\ 49 \\ 1 \\ 19 \\ 1 \\ 19 \\ 1 \\ 19 \\ 1 \\ 19 \\ 1 \\ 1$ | $\begin{array}{c} 4.\ 71\frac{1}{3}\\ 4.\ 75\frac{1}{8}\\ 585\frac{1}{8}\\ 691^{+}\\ 30.\ 50\\ 671\\ -\ 40\frac{1}{3}\\ 27.\ 10\\ 531\frac{3}{4}\\ 42.\ 03\\ 23.\ 58\\ 52.\ 50\\ 52.\ 50\frac{7}{5}\\ 50\frac{7}{5}\\ \end{array}$ | $\begin{array}{c} 4.\ 71\frac{1}{6}\\ 4.\ 75\frac{1}{16}\\ 583\frac{1}{5}\\ 70\frac{1}{5}\\ 31.\ 75\\ 646\frac{1}{2}\\ 41\frac{1}{16}\\ 27.\ 40\\ 525\frac{1}{4}\\ 43.\ 15\\ 24.\ 10\\ 53.\ 45\\ 51\end{array}$ | | |
| | November. | | | | | | | December. | | | | | | |
| | 1914 | | 1915 | | 1916 | | 1914 | | 1915 | | 1916 | | | |
| | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | Low. | High. | | |
| London: 60-day bankers' bills, dol- lars. Sight drafts. Paris. Petrograd. Amsterdam. Copenhagen. Zurich. Buenos Aires. Rio de Janeiro. Shanghai. Yekohama. do. | $\begin{array}{c} 4.84\frac{3}{4}\\ 4.86\frac{3}{4}\\ 516\\ 85\frac{3}{4}\\ 42\frac{3}{4}\\ 540\\ 40\frac{3}{4}\\ 25\frac{3}{8}\\ 520\\ \hline \end{array}$ | | $\begin{array}{c} 4.\ 60\frac{1}{2}\\ 590\frac{1}{2}\\ 79\frac{1}{2}\\ 651\frac{1}{2}\\ 41\frac{1}{2}\\ 28.\ 20\\ 534\\ 41\frac{1}{2}\\ 23.\ 20\\ 43\frac{1}{2}\\ 55\frac{1}{2}\\ 49\frac{1}{2}\\ \end{array}$ | $\begin{array}{c} 4.\ 681\\ 4.\ 716\\ 582\\ 817\\ 333\\ 42\\ 28.\ 05\\ 531\\ 413\\ 43\\ 42\\ 28.\ 05\\ 531\\ 413\\ 481\\ 63\\ 50\\ \end{array}$ | $\begin{array}{r} 475 \frac{3}{16} \\ 471\frac{3}{12} \\ 584\frac{3}{12} \\ 671\frac{3}{12} \\ 29, 25 \\ 673\frac{1}{2} \\ 40\frac{3}{4} \\ 26, 90 \\ 523\frac{1}{2} \\ 43, 12 \\ 23, 02 \\ 53, 60 \\ 77 \\ 50\frac{7}{2} \end{array}$ | $\begin{array}{r} 475\frac{1}{3}\\ 471\frac{3}{4}\\ 584\frac{1}{2}\\ 70\frac{3}{4}\\ 665\\ 41\\ 27.15\\ 517\\ 43.40\\ 23.96\\ 56\\ 87\frac{1}{2}\\ 51\\ \end{array}$ | 4. 81 4. 84 4. 84 42 534 40 25 524 | 4. 861 4. 894 511 921 43 523 405 254 518 - | $\begin{array}{c} 4.\ 671\\ 4.\ 702\\ 5882\\ 762\\ 923\\ 661\\ 413\\ 223\\ 418\\ 233\\ 45. 15\\ 602\\ 50\end{array}$ | $\begin{array}{c} \textbf{4. 71}\\ \textbf{4. 74}\\ \textbf{581}\\ \textbf{79}\\ \textbf{32}\\ \textbf{32}\\ \textbf{43}\\ \textbf{43}\\ \textbf{28. 00}\\ \textbf{524}\\ \textbf{42}\\ \textbf{23}\\ \textbf{50}\\ \textbf{47. 35}\\ \textbf{63}\\ \textbf{50}\\ \textbf{3}\\ \textbf{50}\\ \textbf{2} \end{array}$ | | | | |