four-fifths of a mile; Uranus, a full-sized cherry or small plum, upon the circumference of a circle more than a mile and a half; and Neptune, a good-sized plum, in a circle about two miles and a half in diameter.

Mercury, the nearest planet to the sun, revolves round him at a distance of about 35,000,000 miles; the earth's distance from the sun being 91,000,000, it has a diameter about one-third of that of the earth. It can be seen at certain times just after sunset, and at others just before sunrise. It is 84 days in traversing its orbit, so that its year is less than a quarter of ours. Little is known of Mercury itself; we know not whether it has a land and water surface like the earth, or is waterless like the moon —whether it is enveloped in a dense, cloudy atmosphere, which protects its inhabitants, if such there be, from the intense heat of the sun, or not.

Next to Mercury comes **Venus**, at about 66,000,000 miles from the sun, with a diameter nearly as large as the earth. It can generally be seen either just after sunset or before sunrise, according to its position in its orbit round the sun. It is the brightest of the planets, and when visible cannot be mistaken. It takes 224 days to perform its annual revolution, and 23¼ hours for its rotation on its axis.

The next planet after Venus is the **Earth**, and then **Mars**. Mars is about 139,000,000 miles from the sun. Its diameter is about one-half that of our earth, and its days are half an hour longer than ours. It requires 686 days to complete its annual revolution round the sun, making its year nearly double the length of ours. When seen through a telescope this planet appears to have a bright surface, on which are darker portions, the former being the lands and the latter the seas.

The next planet is **Jupiter**, which revolves in an orbit at a distance of 476,000,000 miles from the sun, completing its year in 4,333 days. Its diameter is about ten times the diameter of the earth, and its days are about 10 hours long. When observed with a telescope, Jupiter appears to be crossed by several dark belts, which are continually changing. This planet has four moons revolving round it.

We next come to **Saturn**, a truly grand sight in a telescope. Besides having eight moons, this planet has an immense bright ring surrounding it. It revolves in an orbit at about 872,000,000 miles from the sun, taking 10,759 days, or nearly thirty of our years, to complete its year, and having a diameter nine times greater than that of our earth. The length of its day is about 10½ hours. It is thought that the rings represent a vast assemblage of small satellites or moons revolving round the planet.

Of **Uranus** very little is known, its distance —1,763,000,000 miles from the sun—being so immense; it takes 30,686 of our days to complete its revolution, and it is known to have four moons.

Neptune is the most distant of the planets, being 2,746,000,000 miles from the sun. Its year consists of 60,126 days.

MISCELLANEOUS BUSINESS EXERCISES.

FROM THE SIXTH DEPARTMENT OF THE NEW ARITHMETIC.

Transaction.—Toronto, August 3rd, 1886. F. M. Knowles gives T. Gibson an order on C. Fraser & Co. for $25, to be paid in goods from his store.

288. Write the order.

289. Gibson gives Knowles a receipt. Write the receipt.

Transaction.—New York, July 5th, 1885. S. S. Packard borrows $450 from D. T. Ames, and gives his note at ninety days in payment.

290. Write this note. Make it payable to bearer.

291. When will it be due?

292. If interest were charged at 6%, how much would be due at maturity?

Transaction.—New York, July 12th, 1885. D. T. Ames has Packard's note discounted at the First National Bank at 7%, and receives cash in return.

293. Indorse the note before discounting it.

294. How much cash should Ames receive?

Transaction.—Chicago, September 4, 1886. Richard Lees buys goods to the amount of $35.80 from D. E. Lantz & Co., and gives his check on the Second National Bank in payment.

295. Write this check. Make it payable to order.

296. Indorse the check, making it payable to J. Tait's order.

Transaction.—St. Louis, November 15th, 1886. W. A. Beer borrows $337 from E. P. Rowell, and gives his note at three months in payment. Interest 7%.

297. Write this note. Make it payable to order.

298. When will it be due?

299. What amount will be due at maturity?