

1257. What is the discount, at 8 per cent, on a note for \$750, payable, without interest, in 2 yr. 3 mo. 20 da. ?

1258. Find the proceeds of a note for \$1,000, due in 90 days, discounted at bank at 6 per cent.

1259. C owes D \$900, of which \$200 will be due in 3 mo., \$300 in 6 mo. and the balance in 12 mo. What would be the mean or equated time of payment ?

1260. In the firm of A. & B., A invested \$200 for 7 mo. and B. \$300 for 9 mo. They gained \$125 : what was each one's share of the gain.

1261. How many feet long is each side of a square acre ?

1262. If fifteen men can do a certain piece of work in 90 days of 10 hours each, in how many days of 12 hours each can 20 men do the same work ?

1263. What is the premium on a building valued at \$3,000, insured for $\frac{3}{4}$ of its value, at $2\frac{1}{2}$ per cent ?

1264. Find the lacking term in the proportion.

10 gal. 3 qt. : ——— : : 5 : 9.

1265. Find the length of the edge of a cubical box containing 262144 cu. ft.

Examination XLVIII. June 15, 1882.

(10 to 12 A. M.)

1266. What do you understand by the prime factors of a composite number ?

1267. Find the greatest common divisor of 360, 648, 972.

1268. Find the least common multiple of 14, 16, 21, 24, 112.

1269. Exchanged a carriage worth \$140, and five sets of harness worth \$29 each, for 45 cords of wood and \$73.50: what was the wood valued at, per cord?

1270. Express the present year of the Christian era, by Roman notation.

1271. Express in words: 645000021903.

1272. Copy and numerate: 14627.5623.

1273. State the essential difference between common and decimal fractions.

1274. Write the table of linear (or long) measure.

1275. A owns $\frac{3}{11}$ of a farm worth \$15422, and sells $\frac{2}{3}$ of his share. Find the value of what he has left.

1276. $\frac{2}{4}$ of $\frac{4\frac{5}{9}}{6\frac{1}{3}} \div \frac{11\frac{5}{7}}{6\frac{9}{11}} =$ what?

1277. $(12 \times 5 \times 153 \times 35 \times 18 \times 2)$ divided by $(3 \times 14 \times 9 \times 5 \times 17 \times 20 \times 6) =$ what?

(Use cancellation.)

1278. Divide 87 lb. 8 oz. 19 pwt. 21 gr. by 7, leaving the result in the same denominations.

1279. Reduce .21675 T. to integers of lower denominations.

1280. How many flagstones averaging 2 ft. long by 1 ft. 3 in. wide will be required for a walk 250 ft. long and 4 ft. 6 in. wide?

1281. Find the side of a square field equivalent to a rectangular one 2859 yd. long and 714 yd. wide.

JUNE 16, 1882. 10 TO 12 A. M.

1282. If a pile of wood 36 ft. long, 4 ft. wide

and 5 ft. high cost \$58.50, what will a pile 60 ft. long, 4 ft. wide and 6 ft. high cost at the same rate?
(Solve by proportion.)

Suppose that Jonas Smith owes you \$343, for which he gives his promissory note of this date, payable to your order in 90 days, with legal interest. (1283) Write a complete copy of the note, and (1284) compute the amount payable when due, including three days grace.

1285. How much can I realize on a note for \$2144.50 due in 3 mo., 10 da., discounted at bank at 8 per cent.?

1286. Bought 150 bbls. of flour at \$6.75 per bbl., and sold it at $12\frac{1}{2}$ per cent. advance: what amount did it bring?

1287. How long must \$240 be on interest at $8\frac{1}{2}$ per cent. to amount to \$266.40?

1288. A vessel and cargo are valued at \$297000. The premium paid for insurance on $\frac{3}{8}$ of their value was \$2475. What was the rate of insurance?

1289. What sum of money will amount to \$228.60 in 2 yr. 4 mo. 18 da., at 6 per cent.

1290. How many gallons in $24\frac{1}{2}$ hektoliters of wine? (A liter = 1.0567 qt.)

1291. Explain the difference between specific and ad valorem duties.

1292. Extract the cube root of 50653.

1293. The time at a certain place is 3 h. 15 min. earlier than at Washington. In what longitude, reckoned from Washington, is that place?