1174. What must be the face of a note for 90 days, at 6 per cent, on which I can obtain at bank $472.86 ?

1175. Two numbers are to each other as 7 to 11, and the greater is 329: what is the less ?

1176. Paid $2225 for 180 sheep and sold them for $2675: what should I gain on 1200 sheep at the same rate ? (Solve by Proportion.)

1177. If it cost $176 to hire 12 horses for 5 days, what will it cost to hire 10 horses for 18 days ? (Solve by Compound Proportion.)

1178. How many miles of fence would be required to enclose 640 acres laid out as an exact square ?

1179. What is the cube root of 104329 ?

1180. A person after spending $\frac{1}{3}$ and $\frac{1}{4}$ of his money and $20 more, had $80 left. What had he at first ?

1181. The width of a building being 38 ft., and the ridge of the roof 5 ft. higher than the eaves, how many feet of boards would be required to cover one of the gable ends ?

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1182. Write in figures and numerate: Nine units of the 8th order, six of the 7th, three of the 5th, seven of the 4th, nine of the 1st.

1183. Copy and numerate: 9004082501.

1184. $((256 \times 25) - 625) \div 35 = ?$

1185. Find the prime factors of 2310.

1186. What is the greatest common divisor of 1313 and 4108?

1187. What is the least common multiple of 84, 100, 224 and 600?

1188. If 235½ acres of land cost $4725§, what will 628 acres cost, at the same rate?

1189. From four hundred twenty-seven thousandths take four hundred twenty-seven millionths.

1190. Divide .125 by 8000.

1191. Add six hundred and twenty-five thousandths; four tenths; seven, and sixty-two ten-thousandths; three, and fifty-eight millionths; ninety-two, and seven hundredths.

1192. What is the cost of 18640 ft. of timber, at $4.50 per 100 ft.?

1193. How many cubic inches does the standard (wine) gallon contain? 1194. The standard bushel?

1195. Reduce 41760 grains to pounds.

1196. In 10 mi. 7 ch. 4 rd. 20 l., how many links?

1197. Reduce 3 qt. 1 pt. 1 gi. to the decimal of a gallon.

1198. How many shingles will it take to cover the roof of a building 46 feet long, each of the two sides of the roof being 20 ft. wide, allowing each shingle to be 4 in. wide, and 5 in. of the length to be exposed to the weather?

1199. What will it cost to build a wall 240 ft. long, 6 ft. high, and 3 ft. thick, at $3.25 per 1000 bricks, the size of each brick being 8 in. × 4 in. × 2 in.?

1200. If a note for $605.70 given June 20, 1878, on simple interest at 8 per cent., be taken up June

20, 1881, what amount will then be due, if no interest has been paid?

1201. A man invests $2000 in bank stock, and receives a semi-annual dividend of $75: what is the rate per cent of income, per annum?

1202. Give the U. S. rule for partial payments.

1203. What is the present worth of a note for $1315.389, due in 2 y. 6 mo., at 7 per cent.?

1204. If 6 men dig a cellar 22.5 ft. long, 17.3 ft. wide, and 10.25 ft. deep, in 2.5 days, of 12.3 ho., in how many days of 8.2 ho., can 9 men dig one 45 ft. long, 34.6 ft. wide, and 12.3 ft. deep?

1205. If an army of 55225 be massed in a solid square, how many men will there be on a side?

1206. A man bought a farm 198 rods long and 150 rods wide, and agreed to give $32 an acre: how much did the farm cost him?

1207. What is the length of one edge of a cistern of cubical form, containing 1331 solid feet?

1208. How many barrels does such a cistern as the one described in the preceding question, contain?

1209. Name and describe the standard unit of weight in the Metric system.

Examination XLVI. Nov. 17, 1881.

(10:00–15:00 A. M.)

1210. Name five fundamental rules or operations of arithmetic.

1211. What is a composite number?

1212. Find the prime factors of 320.