

381. What will be the amount, at simple interest, of \$35.61, from Nov. 11, 1869, to Dec. 15, 1871, at 6 per cent?

382. If the consequent be  $\frac{7}{8}$ , and the ratio  $\frac{4}{5}$ , what is the antecedent?

383. At the rate of 9 yards for £5 12s. how many yards of cloth can be bought for £44 16s?

384. What is the square root of 576.02880036?

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*Examination XVII. Feb. 27, 1872.*

385. Add seven hundred and four; sixty thousand four hundred; five million eight thousand and sixty; 912875; thirty thousand and forty-nine; seven hundred and seven thousand nine hundred and six.

386. A. had \$3,958, B. \$1,463; A. lost \$1,365, B. gained \$1,165: which then had the most, and how much?

387. A peddler bought 491 yards of cloth at 81 cts. a yard; he used 29 yards, and sold the rest at 95 cts. a yard: how much did he gain?

388. A city had \$311,205 at the beginning of the year; the income of the year was \$884,743, and expenses \$396,756: what was the balance on hand at the end of the year?

389. A man exchanged 159 cords of wood at \$5 a cord, for a horse valued at \$144, and the balance in sheep at \$3 apiece: how many sheep did he receive?

390. How many pieces of muslin, each containing 33 yards, must be sold at 14ct. 5m. a yard to realize \$1,339.80?

391. How many sq. yd. of paving in a street are there, 2700ft. long and 40ft. wide?

392. At noon on Thursday, a ship was in north latitude  $28^{\circ} 15' 35''$ ; it then sailed north till Saturday afternoon at 3 o'clock, when it was in north latitude  $41^{\circ} 34' 35''$ : what was its average motion per hour, in geographical miles?

393.  $\frac{7}{8}$  of  $\frac{9}{10}$  of  $\frac{11}{12}$  of  $\frac{13}{14}$  of  $\frac{15}{16}$  of  $204 = ?$

394. Sold a team for  $\$183\frac{1}{2}$ , losing  $\$24\frac{1}{2}$ : for how much should I have sold it to gain  $\$39\frac{7}{10}$ ?

395. A man having  $105\frac{1}{2}$  A. of land, exchanged  $\frac{1}{3}$  of it for wood, at the rate of  $10\frac{1}{2}$  C. per A.: how many C. did he receive?

396. Multiply the quotient of  $14\frac{2}{3}$ , divided by  $6\frac{6}{7}$ , by the quotient of  $5\frac{2}{3}$  divided by  $7\frac{7}{11}$ .

397. Reduce 9000000 in. to mi.

398. What is the cost of a field 77 rd. long and 41 rd. wide, at  $\$17.60$  an A.?

399. If 4.2 yd. of cloth cost  $\$15$ , what will 8 yd. 3 qr. cost?

400. If a loaf weighing  $12\frac{2}{3}$  oz. is worth 2 cts., when flour is  $\$4$  a bbl., what is the value of a loaf weighing  $10\frac{2}{3}$  oz., when flour is  $\$6\frac{2}{3}$  a bbl.?

401. A man bought 350 A. of land for  $\$40$  an acre, and sold a part for  $\$2,240$ , at the same rate: what per cent. of the land did he sell?

402. At 6 per cent., what is the interest of  $\$720$  for 3 yrs. 4 mo. 16 da.?

403. Sold 50 bbl. of wine, each containing 31 gal. 2qt., at  $\$2.40$  a gal., receiving a note at 90 days without grace: what would be the proceeds of this note, discounted at  $7\frac{1}{2}$  per cent.?

404. A., B. and C. bought a horse for \$100 and sold him for \$150, by which A. gained \$18 and B. \$19: how much had each paid for the horse?

405. A man had a yard 38 ft. long and 27 ft. wide: he reserved two grass plats each 8 ft. square, and had the rest paved with stone, at 45 cts. a sq. yd.: what did the paving cost?

406. The product of two equal factors is 34225: what is each factor?

407. Find the sum of 10 terms of the geometric series, 3, 6, 12, etc.

408. If January 1st is Sunday, how much can a man earn in the first three months of a leap year, at \$1.25 per day, not working Sundays?

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*Examination XVIII. June 6, 1872.*

409. If the minuend be 69 trillion and the difference 85 billion, what is the subtrahend?

410. If 892 is one factor, and 28544 the product, what is the other factor?

411. Resolve 180 into its prime factors.

412. Find the greatest common divisor of 222 and 564.

413. Reduce 8692 to a fraction whose denominator is 25.

414. What cost  $5\frac{7}{8}$  cords of wood at \$7.56 a cord?

415.  $\frac{5}{7}$  of  $\frac{1}{2}$  divided by  $\frac{5}{12}$  of  $\frac{2}{3}$  of  $\frac{2}{3}$  = ?