

521. A note for \$470.66, drawn at 60 days, is discounted at bank at 6 per cent: what are the proceeds?

522. What is the amount of \$50, at compound interest for 3 yr. at 8 per cent., interest payable half-yearly?

523. J. Ayres has D. Howe's note for \$1,728, dated Dec. 29, 1869: what was the amount Oct. 9, 1873, at 9 per cent., with interest from date?

524. What is the value in currency of \$865 in gold, when the latter is selling at 107 per cent.?

525. How much gold will \$100 currency buy, gold being at 111?

526. Suppose that you buy of D. Appleton & Co. of New York, 5 reams of note paper, at \$3.25 per ream; 4,500 envelopes, at \$4.75 per M.; 24 boxes of steel pens, at \$1.12½ per box; 6 French dictionaries, at \$1.50 each; and 3 photographic albums, at \$5.75 each. Make a bill for D. Appleton & Co., against yourself, in regular form.

527. 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 45cts. a sq. yd.: what did the paving cost?

528. How much will it cost to dig a cellar 40 ft. long, 32 ft. wide, and 5 ft. deep, at \$0.25 a cubic yard?

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*Examination XXIII. Feb. 26, 1874.*

529. Find the smallest number which will exactly contain 9, 15, 18, 20.

530. If 5 be added to each term of the fraction  $\frac{5}{3}$ , by what number will its value be diminished?

531. If .0001 is the dividend, and 1.25 the divisor, what is the quotient?

532. What will 28 sq. yd., 129 sq. ft. of land cost at 12 cts. per sq. ft.?

533. What is the cost of 4,565 ft. of joist, at \$23 per M., and 13,640 ft. of boards at \$53.55 per M.?

534. If  $32\frac{3}{4}$  sq. yd. of carpeting will cover a floor 14 ft. wide, what is the length of the floor?

535. If a load of wood is 8 ft. long and 3 ft. wide, how high must it be to contain a cord?

536. What decimal of a short ton is  $\frac{5}{8}$  of an oz.?

537.  $20004 \div (20.104 \times 5.07) - (6.44 \div .0005) = ?$

538. What part of  $2\frac{2}{3}$  is ( $\frac{2}{3}$  of  $\frac{2}{3}$  of  $\frac{2}{3} \div \frac{2}{3}$ )?

539. Reduce .3945 of a day to lower denominations.

540. An agent received \$67.50 for collecting \$4,500: what was the rate per cent. of his commission?

541. How many cubic ft. in a rectangular beam, 24 ft. 6 in. long, 1 ft. 9 in. wide, and 1 ft.  $2\frac{1}{2}$  in. thick?

542. How much shall I gain by borrowing \$3,560 or 1 yr. 6 mo. 10 da., at 6 per cent., and lending it at 7 per cent. for the same length of time?

543. What is the amount of \$1,450.40 from April 19, 1872, to August 3, 1873, at 6 per cent.?

544. What is the difference between the greatest common divisor of 30 and 42, and their least common multiple?

545. A 63 gal. cask is  $\frac{3}{5}$  full of wine: if 27.625 gal.

should leak out, the wine remaining will be what decimal part of the full cask?

546. James Riley & Co. bought, July 7, 1873, of Joseph Herr, Trenton, N. J., 15 tons of coal at \$6.50 per ton; 19 tons of coal at \$8.25 per ton; and  $14\frac{1}{2}$  cords of wood at \$5.20 per cord. Make a bill of the purchase, and receipt it for Joseph Herr.

547. How much must be paid for 41 gal. 2 qt.  $1\frac{3}{4}$  pt. of molasses, at 72 cts. a gal.?

548. If  $\frac{11}{12}$  of a ton of hay cost \$18.50, how much will two loads cost, one weighing  $\frac{5}{6}$  of a ton, and the other  $\frac{13}{14}$  of a ton?

549. What is the difference between the true and the bank discount of \$300, for 3 months, at 8 per cent?

550. What principal on interest at 7 per cent., from April 9, 1871, to Sept. 5, 1873, will amount to \$1,477.59?

551. The difference between the interest of \$600, and that of \$750, at 5 per cent. for a certain time, is \$18.75. What is the time?

552. If 18 men can dig a trench 30 yd. long in 24 da., by working 8 hr. a day, how many men can dig a trench 60 yd. long, in 64 da., working 6 hours a day?

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*Examination XXIV. June 4, 1874:*

553. What is the sum of 3912, 400005,  $631\frac{2}{3}$ , 736863, .000803, 60708010,  $4\frac{4}{1000}$ , and 290.68042?

554. Subtract  $\frac{4}{5}$  of  $9\frac{2}{3}$ , from  $\frac{5}{11}$  of  $151\frac{1}{2}$ .