

*Examination XXII. Nov. 6, 1873.*

505. Find the sum  $\frac{2}{3}$  of  $9\frac{3}{5}$  and  $\frac{1}{5}$  of  $28\frac{1}{6}$ .
506. Find the difference between  $3\frac{2}{3}+7\frac{2}{3}$  and  $4+2\frac{3}{7}$ .
507. The product of three factors is  $19\frac{1}{2}$ , and two of them are  $\frac{4}{5}$  and  $\frac{5}{8}$ : what is the other?
508. Divide .5 of 1.75 by .25 of  $17\frac{1}{2}$ .
509. What is the value of  $6\frac{2}{3}$  divided by  $8\frac{2}{3}$ , as a simple fraction?
510. What is the value of .815625 of a pound Troy expressed in oz. pwt. and gr.?
511. Reduce 4 da. 4 hr. 48 mi. to the decimal of a week.
512. A person owned  $\frac{5}{8}$  of a mine and sold  $\frac{3}{8}$  of his interest for \$1,710: what was the whole cost?
513. Sold  $9\frac{3}{4}$  cwt. of sugar at \$8 per cwt., and thereby lost 20 per cent: what was the whole cost?
514. A man, owning  $\frac{4}{5}$  of a bank, sold 35 per cent. of his share: what per cent. of the whole was left?
515. A's property is assessed at \$6,750, and B.'s at \$13,550. A.'s tax is \$55.35: how much is B.'s?
516. How many acres could 10 men plough in 14 hours if 7 men plough 6 acres in  $12\frac{1}{2}$  hours?
517. What is the simple interest on \$200 for 3 yr. 10 mo. at 7 per cent?
518. In 1 yr. 4 mo., \$311.50 amounted to \$348.88, at simple interest; what was the rate per cent?
519. What is the amount of \$1,000 for 7 yr. 10 mo. 18 da., at 6 per cent. simple interest?
520. What sum, at 9 per cent., simple interest, will amount to \$286.00, in 3 yr. 4 mo.?

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.