

counted at bank at the rate of 7 per cent. : what does he receive?

596. Extract the square root of 1104601.

597. If a man can do a piece of work in 20 days, working 10 hours a day, how long will it take him to do the same if he works 12 hours a day?

(Solve by proportion.)

598. A farmer puts a flock of sheep in three pastures; in the first he puts  $\frac{1}{3}$  of his flock, in the second  $\frac{1}{2}$ , and in the third, 32 sheep. How many has he?

(Solve by analysis.)

599. Find 12 per cent. of  $\$ \frac{1}{1\frac{1}{2}}$ .

600. A commission merchant sold 500 pieces of muslin, each piece containing 21 yards, for 23 cents a yard: what is his commission at  $2\frac{1}{2}$  per cent?

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*Examination XXVI, Feb. 25, 1875.*

601. The population of Me. is 627,413; of N. H., 301,471; of Vt., 300,187; of Mass., 1,240,499; of Conn., 410,749; of R. I., 192,815. What is the aggregate population of these States?

602. B. had \$12,311; and after paying his debts, and giving away \$2,108, he has \$8,199 left. What was the amount of his debts?

603. How many peaches in an orchard of 14 rows of trees, each row having 27 trees, and each tree 108 peaches?

604. How many cheeses of 45lb. each, at 12 cts.

per lb., will pay for 15 bbl. of apples, each containing 3 bu., at 84 cts per bu.?

605. Add  $8\frac{8}{13}$ ,  $2\frac{2}{3}$ , and  $5\frac{2}{5}$ .

606. What cost  $33\frac{1}{2}$  lb of tea, at  $93\frac{1}{2}$  cts. per lb?

607.  $100\frac{2}{3} \div 66\frac{2}{3} = ?$

608. Write as a decimal, and in words,  $\frac{18}{100000}$ .

609.  $6.43875 \div 4027.5 = ?$

610. Anna Lee buys of Eva Cole, for cash, 18 yd. of calico, at  $12\frac{1}{2}$  cts. per yd.; 12 yd. muslin, at 17 cts.;  $2\frac{1}{2}$  yd. linen at 74 cts.; and 9 spools thread, at 7 cts. Make a bill in due form.

611. What decimal part of a mile is 74 rd. 5 yd.?

612. The circumference of 1 carriage wheel is 13 ft. 9 in., and that of another is 16 ft. 6 in. How many more times will one turn than the other, in going 30 miles?

613. What cost 8,824 lb. of hay, at \$15 per ton?

614. The *means* and *one extreme* of a proportion being given, how may the *other extreme* be found?

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616. Give an example of a proportion in which the means and one extreme are given, and solve it.

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618. If 20 yd. of cloth  $\frac{3}{4}$  of a yd. wide are required for a dress, what must be the width of a piece 12 yd. long, to answer the same purpose?

(Solve by proportion.)

619. If a man can walk 250 mi. in 9 da. of 12 hr. each, how many da. of 10 hr. each would he spend in walking 400 mi.? (Solve by double proportion.)

620. A boy bought eggs at the rate of 3 for 5 cts., and sold them at the rate of 4 for 7 cts., clearing 9 cts.: how many did he buy?

(Solve by analysis.)

621. A commission merchant sold 500 pieces of cloth for \$30 a piece, and paid the owner \$14,700: what was the rate of his commission?

622. A store was insured for \$12,000 at the rate of  $\frac{1}{4}$  per cent., and the goods for \$15,000, at  $1\frac{1}{2}$  per cent.: what was the entire premium?

623. What will be the proceeds of a note for \$1,000, without interest, payable at bank in 60 days, at 6 per cent?

624. A man being asked his age, replied, if you add to its half, its third and three times three, the sum will be 130: what was his age?

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*Examination XXVII. June 3, 1875.*

625. The quotient is 71, the divisor 42, and the remainder 15: what is the dividend?

626. What will be the cost of 2,760 lb. of hay at \$8.50 per ton?

627. From  $17\frac{1}{2}$  take  $\frac{2}{3}$  of  $16\frac{1}{2}$ , and multiply the remainder by  $\frac{2}{3}$ .

628. A lady bought 6 silver spoons, each weighing 3 oz. 3 pwt. 8 gr., at \$2.25 an oz., and a gold chain weighing 14 pwt. at \$1.25 a pwt.: what was the cost of both spoons and chain?