765. What will \$864.50 amount to in two years at 8 per cent. compound interest?

766. If 10 tons of hay will support 5 horses 8 mo., how many horses will 18 tons support one year? (Solve by double proportion.)

767. How many men will be required to build 32 rods of wall in the same time that 5 men will build 10 rods? (Solve by analysis.)

## Examination XXXIII. June 7, 1877:

768. What are the 3 terms in multiplication called?

769. What are the 3 terms used in division called?

770. What are the first and second terms in multiplication taken together called ?

771–772. To what terms in multiplication do the terms in division correspond?

773. How many partial products will there be, if the multiplier consists of several figures?

774. Given 73654 a multiplicand, and 4365 a multiplier, what is each successive multiplier, *expressed* in words?

775. Multiply 73564 by 4365, and express each partial product *in words*.

776. Multiply 73654 by 4365, giving the entire work.

777. To what, in division, does the numerator of a fraction correspond?

778 To what in division does the denominator of .a fraction correspond?

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779. If a cubic foot of limestone weigh 175 lbs., what is the weight of a cubic yard?

780. What part of an acre is  $\frac{7}{3}$  of a square rod?

781. Find the greatest common divisor of 72, 96, 120, 384.

782. Divide 6525 by 4.35.

783. Add 1, 3, 4-13, 9-17.

784. Find the product of 8-15×12 1-4×1-5×71.

785. Divide  $\frac{2}{5}$  of  $2\frac{1}{5}$  by  $\frac{2}{5}$  of 3.

786. Reduce to an equivalent decimal, 1-320:

787. If  $10\frac{1}{2}$  cords of wood cost \$34.12 $\frac{1}{2}$ , what will 60 $\frac{1}{2}$  cords cost? (Solve by *analysis*.)

788. How much carpeting  $\frac{4}{5}$  of a yard wide, is required for a room 27 ft. 3 in. long and 22 ft. 6 in. wide?

789. In multiplication of decimals, how is the place of the decimal point in the product determined?

790. In division, how is the place of the decimal point in the quotient determined?

791. At \$1.20 per gallon, what cost 1 bbl. 15 gal. 3 bt. of melasses?

792. Reduce 28 rd. 4 yd. 2 ft. 10 in. to inches.

793. What per cent. of \$4 are 30 cents?

794. Sold 160 acres of land for \$4,563.20, which was 8 per cent. less than it cost; what did it cost per acre?

795. What is the simple interest of \$137.25 for 2 yr. 7 mo. 14 da. at 7 per cent.?

796. A note for \$250, dated June 5, 1874, was paid Feb. 14, 1875, with interest at 8 per cent. What was the amount? 797. Bought two horses for \$420, paying \$48 more for one than the other. Find the price of each.

798-799. Boston is 71° 4' 2" w. longitude, and Washington 77° 1' 30". When it is noon at Boston, what is the time at Washington? (Two credits.)

800. If 2375 A. 2 R. 16 rd. of land be laid out in the form of a square, what will be the length of each side?

801. A. has \$4,000, B. \$2,700, C. \$2,300 in a house renting for \$720: what is each man's share of rent?

802. What is the present worth of \$2,000 due in 3 yr. 6 mo., with interest at 7 per cent.?

## Examination XXXIV. Nov. 8, 1877.

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803. In the decimal notation, why is the *nought* (0) used, which of itself has no value?

804. Why does (0) annexed to the decimal not change its value ?

805. What is the differance between a common and decimal fraction?

806. A man gave 503 acres of land to his sons, giving them 83? acres each; how many sons had he?

807. What is the value of a fraction multiplied by its denominator?

808. If 14 acres of meadow yield  $32\frac{2}{3}$  tons of hay, what will  $5\frac{1}{3}$  acres produce at the same rate?

809. Change 4, 2.17, .136, and .0408 to equivalent decimals having a common denominator. (810.) Find their sum.

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