Miss Fairfield has been appointed teacher in Adamsville school, Quebec.

Mr. Mayo, formerly of Magog public school, has been appointed to take charge of the Masonville, Que., school.

M. P. McMaster formerly principal of the Flesherton public school, has been appointed head master of the public schools in Thorold. Mr. McMaster is one of the best of teachers, and we predict for him a good record.

Mr. S. C. Haliday, formerly principal in the Lachute, Quebec, Academy, has been appointed principal of the Huntingdon Academy, at a salary of $1,150. Mr. Haliday is deserving of his good fortune, being an excellent educator.

Mr. Grant has resigned his position in the Hull, Que., model school. He is now engaged in teaching at Aylmer. He will be succeeded in Hull by Miss Stacy.

Mathematical Department.

HARVARD COLLEGE, CAMBRIDGE, MASS.

EXAMINATION FOR ADMISSION, JUNE, 1883.

1. Find the difference between $3\frac{1}{4} \times 6\frac{2}{13}$ and $\frac{5+\frac{8}{9}}{7\frac{1}{4}}$. Ans. $=22\frac{5}{13}$.

2. A field is $38\frac{7}{50}$ rods long and $37\frac{1}{2}$ rods wide. Find its area in acres and sq. rods. Ans $=17$ ac., 140·4998 rods.

3. Find all the factors of 1001 and 616 that are common. Ans. 7, 11 and 77.

4. The distance from Boston to Albany is 320 k. m. Find the distance in miles assuming 1 meter$=3\frac{7}{25}$ feet. Ans. 320 km. $=(3280\times320\div528^{\circ\prime\prime}\cdots\cdots$ miles$=198\cdot78$ miles.

5. A man, travelling 9 hours a day, goes 234 miles in 15 days. How far can he go in 30 days, travelling 8 hours a day? Ans. $=\frac{8}{9}$ of twice 234 miles$=16\times26=416$ miles.

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1. Solve $\frac{1}{x}=2-\frac{4ax^2-3bx-2)}{2a(x^2+1)\div3b}$

Complete division, and cancel the twos,

$$\frac{1}{x}=\frac{4a-3bx}{2a^2+2a+3b}, \therefore (x^2+1)(2a+3b)=4ax,$$

$$\therefore \frac{x^2+2x+1}{x^2-2x+1}=\frac{4a+3b}{-3b}, \therefore \frac{x+1}{x-1}=\&c.$$

2. A man walks at a regular speed, on a road which crosses a bridge 21 miles from the point he had reached at noon. If his rate were half a mile an hour greater, he would cross the bridge an hour sooner than he does. Find his speed and the time at which he crosses the bridge. Explain the negative result.
$xy=21$, $(x+\frac{1}{2})(y-1)=21$, $\therefore y=2x-1$.
$(2x-7)(x+3)=0$, $x=3\frac{1}{2}$ or -3, $y=6$ or -7.

3. Find the prime factors of the coefficient of the 6th term of $(a-b)^{19}$. What are the exponents, what the sign of this term. Ans. $19\times17\times3^2\times2^3$; $-a^{14}b^5$.

4. Reduce to lowest terms,

$$\frac{x^4+2x^2+9}{x^4-4x^3+10x^2-12x+9}$$

Ans. Numr.$=(x^2+2x+3)(x^2-2x+3)$
Denr.$=(x^2-2x+3)^2 \therefore$ &c.

5. Prove that if $a:b=c:d$, then
$(a+b)\div(c+d)=(a-b)\div(c-d)=a\div c=b\div d$. Book-work.

6. Solve $xy=4-y^2$; $2x^2-y^2=17$. Find all the answers, and show that values of x and y belong together.
Put $y=vx$, divide I by II and $(v+v^2)\div(2-v^2)=4\div17$
$\therefore 21v^2+17v-8=0$; $(7v+8)(3v-1)=0$.
Whence $v=-\frac{8}{7}$ or $\frac{1}{3}$, substitute these values separately and four pairs values for x and y result.

Richard Grant White says Shakespeare is clear enough to be understood without commentaries.

Dear comrades of the teachers' guild,
  There's much to do and little done;
Brothers, sisters, every one
Lend a helping hand, nor shirk
Any part of God's great work.—Exchange.

It is a singular fact that the Queen of England is now the greatest Mohammedan sovereign in the world,—that is, has more Mohammedan subjects than any other power. These are found chiefly in India, over which the Queen rules. There are not so many Mohammedans in Turkey as there are in the East Indian dominions of her Majesty.

The tallest structure formed by man is the great Pyramid which stands near the city of Memphis, in Egypt. It is supposed to have been built by the order of the tyrant Cheops, king of Egypt. It is about 516 feet high, and its base covers an area of eleven acres. Three hundred and sixty thousand men were engaged for thirty years in its erection.

St. Peter's Cathedral in Rome is the largest church in the world. Its architect was the famous sculptor, Michael Angelo. Its height is 464 feet. It was begun in the reign of Julius II., in 1506, and was completed in 1784,—taking a period of two hundred and seventy-eight years for its erection. In less than that time, by many years, the United States have been changed from a wilderness to a country whose cities rival those of the "Old World" in population and wealth, science and art.

Sir William Phipps, colonial governor of Massachusetts, and Benjamin Franklin are noted examples of the populousness of New England ancestral families. The former was one of a family of twenty-six children, twenty-one of whom were sons. The latter was one of seventeen children.

The Modelites now eschew the vulgar "Bet your sweet life" for the scholarly "Wager your sacharine vitality." No doubt about their success.

The Question Drawer.

We invite our readers, especially the younger of them, to send to this drawer, questions and difficulties that may arise in the course of either their professional duties or their daily reading. The questions will be left over for two weeks before being answered, and answers are invited from correspondents. When correct answers are not received within two weeks we will do our best to supply them. By way of commencement we subjoin a few, the answers to which will be published in the first regular number of the Weekly, in January.

Q. 1. Who was called "the wisest, brightest, meanest of mankind," and by whom, and why?

2. Why does a ten acre field require more fence when of an oblong shape then when square?

3. What is the composition of dynamite, and why so called?

4. Which of the following pair of expressions, if either, is correct, and why?
He don't know, He doesn't know. Two teaspoonsful, Two teaspoonfuls. Ain't you coming? Aren't you coming?

5. It is said that a person lost on the prairie almost always walks in a circle. Can any reason be assigned?

6. Who were the authors of the following current phrases. "The Almighty Dollar," "What will Mrs. Grundy say?" "All cry and no wool."

7. What is to be done with a bright, eager pupil who is constantly putting questions and asking for help over difficulties that spring up at every step? How can he be kept from being troublesome, without rebuff, or discouragement?