

ANSWERS TO CORRESPONDENTS.

W. F. M. asks, "Is there a regular progression in prime numbers." We believe not, as it can be shown that no general algebraical formula can represent prime numbers only

H. M. B. wishes us to point out the fallacy in the following proposed solution of No. 4, First Class Arithmetic, July, 1881 See Nov. No., '81, also Dec. No.

2% of \$180 = \$3 $\frac{3}{4}$,
 \therefore disc. off \$90 for 101 dys. + disc. of \$90 for 40 dys. = \$3 $\frac{3}{4}$
 \therefore disc. off \$90 for 141 dys. = 3 $\frac{3}{4}$
 \therefore int. on \$86 $\frac{3}{4}$ " " = 3 $\frac{3}{4}$
 \therefore " \$100 " " = &c., = \$10.78.

The fallacy lies on the third line. The discount on \$90 for 101 days + discount on \$90 for 40 days is not = discount on \$90 for 141 days. The discount *does not* vary directly as the time, as here assumed, of course interest *does* vary directly as the time.

Contributions.

THE TEACHERS APPEARANCE IN THE SCHOOL ROOM

SUBSTANCE OF A PAPER READ BY MR. HEWITT BEFORE THE
 MANITOBA TEACHERS ASSOCIATION, WINNIPEG.

It is hard, he said, for one so young and inexperienced in the profession as I, to say what appearance the teacher should at all times assume in his school; but I will give you my ideal of what it should be, and should I advance any thought worthy of criticism I hope to profit by having it thoroughly and fairly discussed.

I assume that the teacher's appearance in the school room includes his dress, habits, language, sentiments, tone of voice, bearing, expression of countenance, etc.

With regard to dress the teacher should in a great measure adapt himself to circumstances, but the following general rule will be found to apply in all cases: he should neither dress so gaily nor so meanly as to make his dress an object of special notice; in short, the teacher himself should be the attraction, and not his dress.

The habits of a teacher should be such that if copied to the letter they may not be injurious to his pupils. This will, of course, prohibit him from the use of tobacco and intoxicating liquor, for, though individuals differ as to the effects of these on adults, all agree that they are very injurious to children; but while he abstains from such things himself he will also do well to abstain from any unpleasant remarks concerning those who use them, for injuring one person is not the way to insure correct habits in another. The habits of an upright teacher will also include punctuality, earnestness, calmness, kindness, gentleness, firmness, truthfulness, etc. If he is not punctual he sets a bad example to his pupils, and also renders himself unable to carry out any regular programme without which his teachings cannot be successful. He should be earnest, because his contract with his trustees calls for earnest work, he will be earnest because he delights in his work, and he feels he must be earnest because he is working not only for time, but also for eternity. He should be calm as well as earnest, for an excited or blustering habit renders him unfit to maintain good order in his school, and thus becomes as great a barrier to success as want of punctuality. While the ideal teacher is at all times calm, gentle, and kind, he is also firm, and will not shirk even the painful duty of inflicting corporal punishment when he is sure it is for the benefit of all concerned. Truth is the very basis of education and he ought to show by his appearance, in every possible way, that he is aiming at it regardless of what theories or hobbies may be overthrown by it. His motto should be, "I will hew to the line, let the chips fall where they may."

At all times, but especially in the school-room, the teacher will find it to his own advantage, as well as that of his pupils, to use only well chosen words. The use of low, vulgar, or incorrect words is to be avoided, for the language of the teacher will be the language of his pupils. The use of good language by the teacher is closely connected with the sentiment that pervades a school for which the teacher is, to a great extent, responsible. But he finds little difficulty in this matter if he is careful not to color his opinions too highly in order to serve his own selfish interests.

The tone of the teacher's voice will express his feelings more forcibly than his words will, however well chosen they may be, hence he should be careful that his words accord with the tone in which they are uttered. By the skilful use of his voice he can indicate his approval or administer a reprimand without causing either jealousy or ill-feeling toward himself or others, whereas the same words uttered in a different voice would be certain to rouse a spirit of rebellion.

To be successful in governing a school it is necessary that all words of command be uttered kindly but firmly, and while the tone in which they are spoken indicates a desire to dispense even justice, it should also exhibit a spirit of mercy.

The bearing of a public school teacher should be neither haughty nor meanly condescending, but should rather be that happy mien which willingly recognizes honest worth even when found among the lowest, and at the same time carries the favor of none, not even the highest. Such a bearing will command the respect of all worthy persons, and secure for him a social position he could not otherwise attain.

It is very desirable that a teacher be always cheerful, and maintain a pleasant countenance while in the school-room. There is a great deal of truth in the belief of Edmund Spenser that "outer beauty springs from the beauty of the soul within." It is impossible for one to maintain a pleasant countenance while within he is full of rage, sorrow, grief, or any other passion, or while he is undergoing bodily suffering. For example, a person suffering from headache, toothache, etc., cannot possibly be cheerful; a person suffering from dyspepsia is generally melancholy and peevish. It may be asked, how is the teacher to avoid the many ills which tend to injure his pleasant countenance? My answer is, he should have complete control of his passions, should not worry too much about the future, and should always look at the bright side of everything. He should also thoroughly understand himself. Our bodies are governed by natural laws, laws which we are capable of understanding and obeying, and we should obey them if we wish to enjoy good health and a cheerful countenance here; and further, we must obey them if we wish to be happy in eternity, for "the laws of nature are the laws of God."

Mr. Springer introduced the general discussion of the subject. While he agreed with most of the points brought forward he thought that there was a danger of paying too much attention to personal appearances. Young persons sometimes spent hours of valuable time before the looking glass. This tended to foppishness, which was the twin sister of laziness. Some men of the highest positions paid the least attention to their personal appearance. He illustrated this from his observations of five millionaires, and from the case of a very learned gentleman, a great linguist, in Toronto. He did not mention these cases as examples. If a teacher could not afford a better coat it was no disgrace to wear a patched one; if clean, it would be respectable. The teacher should set an example of cleanliness, and we should require attention to this matter on the part of the pupils. The speaker concluded by expressing his approval of the recommendation that the teacher be cheerful.