

26. Write your own name and address in full.  
 27. Write a name with three initial letters.  
 28. Write the abbreviation of *Pennsylvania*.  
 29. Write the contraction of *could not*.  
 30. Write the contraction of *does not*.

Copy the following words, putting capitals where necessary:—

- |               |                |               |
|---------------|----------------|---------------|
| 31. saturday. | 32. journeyed. | 33. margaret. |
| evening.      | saratoga.      | picturesque   |
| connecticut.  | california.    | columbus.     |
| continent.    | september.     | washington    |
| protestant.   | beautiful.     | africa.       |
- 
- |               |                |               |
|---------------|----------------|---------------|
| 34. garfield. | 35. mountains. | 36. colorado. |
| navigation.   | residence.     | christian.    |
| particular.   | elmavenue.     | alexander.    |
| missouri.     | chemicals.     | enjoyment.    |
| victoria.     | nobleman.      | livingston.   |

Write the correct abbreviations of the following names:—

- |              |              |              |
|--------------|--------------|--------------|
| 37. Alabama. | 38. Esquire. | 39. Colonel. |
| Ontario.     | California.  | General.     |
| Kentucky.    | Quebec.      | February.    |
| Thomas.      | Louisiana.   | Illinois.    |
| Captain.     | William.     | Manitoba.    |
- 
- |             |              |                |
|-------------|--------------|----------------|
| 40. George. | 41. Brother. | 42. Honorable. |
| Doctor.     | Post Office. | Governor.      |
| Agent.      | Barrels.     | Namely.        |
| Mister.     | Number.      | Secretary.     |
| Professor.  | Street.      | Month.         |

Write in full the names for which the following are abbreviations:—

- |         |          |           |            |
|---------|----------|-----------|------------|
| 43. Io. | 44. B.A. | 45. inst. | 46. G.T.R. |
| Me.     | A.D.     | ult.      | C.O.D.     |
| Pa.     | A.M.     | doz.      | Y.M.C.A.   |
| Mo.     | P.S.     | etc.      | I.O.G.T.   |
| Ga.     | D.V.     | cwt.      | R.S.V.P.   |

### ALGEBRA.

#### SOMETHING NEW IN FACTORING.

The following method of *factoring* is adapted, like all methods of factoring, to a special class of examples:

Factor

$$\begin{array}{r} x^3 + 9x^2 + 23x + 15. \\ x^2 \quad + 4x \quad + 3. \\ x \qquad \qquad + 5. \end{array}$$

The factors of the first term are  $x^2$  and  $x$ , and the factors of the fourth term are  $+3$  and  $+5$ . Place these in position as above. All the signs will be *plus*. Now, to get the co-efficient of  $x$  in the first factor, multiply the  $x^2$  of the first factor by the 5 of the second, subtract the product from the second term of the quantity to be factored, and divide the remainder by the

first term of the second factor. The quotient will be the desired term,  $4x$ .

$$\{9x^2 - (5 \times x^2)\} \div x = 4x,$$

$$\text{or, } \{23x - (3 \times x)\} \div 5 = 4x.$$

In this example the pupil will not know which, 5 or 3, to put first. The correct one can be found only by the *trial* work, necessary in all factoring.

Factor

$$\begin{array}{r} 2x^3 + 17x^2 + 23x + 14. \\ 2x^2 \quad + 3x \quad + 2. \\ x \qquad \qquad + 7. \end{array}$$

In this example there will be two *trials*—first, to place the co-efficient 2, and second, to place the factors 2 and 7.

$$(17x^2 - 14x^2) \div x = 3x.$$

Factor

$$\begin{array}{r} 10x^3 + 32x^2 + 37x + 33. \\ 2x^2 \quad + 2x \quad + 3. \\ 5x \qquad \qquad + 11. \end{array}$$

$$\{32x^2 - (11 \times 2x^2)\} \div 5 = 2x,$$

$$\text{or, } \{37x - (3 \times 5x)\} \div 11 = 2x.$$

#### EXERCISE.

- $x^3 + 2x^2 + 2x + 1.$
- $x^3 + 10x^2 + 26x + 15.$
- $x^3 + 8x^2 + 22x + 35.$
- $3x^3 + 15x^2 + 45x + 33.$
- $6x^3 + 56x^2 + 136x + 26.$
- $x^3 + 7x^2 - x - 7.$
- $x^3 - 4x^2 + 9x - 10.$
- $6x^3 - 19x^2 + 19x - 6.$
- $5x^3 - 10x^2 + 7x - 14.$
- $abx^3 + x^2(a^2 + b^2) + bx(a + c) + ac.$

### PRACTICAL GRAMMAR.

#### SENTENCES FOR CORRECTION—JUNIOR CLASSES.

NOTE.—Do not use adjectives for adverbs.

- He spoke eloquent.
- They searched everywhere.
- The crowd cheered hearty.
- Can't you walk more quick?
- The wounded soldier fought brave.
- The south wind blows soft.
- She decided too hasty.
- You should listen more attentive.
- The work is near finished.
- We have waited quite patient.

NOTE.—Place adverbs where there can be no doubt as to the words they modify.

- I only bring forward a few things.
- We merely speak of ourselves.
- The Chinese chiefly live upon rice.
- I only ate one apple to-day.
- We have often occasion for thanksgiving.