

5. In a factory there are 264 men, women and boys. Find the number of each if there are 33 per cent. more women than boys and 25 per cent more men than women.—25.

6. On May 21st, 1897, Brown borrowed \$375, agreeing to pay simple interest thereon at the rate of 4 per cent. per annum. What amount will he require to settle his account on October 14th, 1899?—25.

7. A contractor undertakes to lay a sidewalk 8 feet wide on both sides of a street $\frac{1}{4}$ of a mile in length. The plank used is to be 2 in. thick and the walk is to be supported by three continuous lines of scantling 4 in. square. Determine the cost of the lumber at \$15 per thousand feet board measure.—25.

8. Divide the sum of the following numbers by 4,786:

eight millions three hundred thousand two hundred and four,

nine millions fifty-three thousand six hundred and twenty-six,

two hundred and four thousand and fifty-nine,

sixty-seven thousand two hundred and thirty-seven,

seven millions thirty thousand and eight,

eight hundred and three thousand two hundred and sixty-seven,

four millions eight hundred and ninety,

seven hundred and eighty-two,

seventy-seven thousand two hundred and seventy-five,

five millions six hundred and sixty-one thousand five hundred and forty-three,

five thousand and sixty,

five hundred and forty-two thousand six hundred and eighty-three.—25.

PHYSIOLOGY AND TEMPERANCE.

NOTE.—[No marks given for No. 8 unless all the work is correct.]

NOTE.—One mark is to be deducted for each misspelt word. A maximum of five marks may be deducted for want of neatness.

1. (a) State why the human system demands (i) food, (ii) water, and (iii) air.—9.

(b) Classify foods. State the purpose and give an example of each class.—6.

2. Describe the stomach, showing its arrangement for receiving, operating on, and disposing of the food.—18.

3 (a) Name in order the vessels, openings, and chambers through which the blood is forced as it passes from the aorta until it re-enters it.—14.

(b) What changes does the blood undergo in this course?—6.

4. Explain how the act of breathing is produced and point out the difference between the air inhaled and the air exhaled.—7+8=15.

5. (a) What is the function of each of the two kinds of matter of which the brain is composed?—8.

(b) Explain fully why "it is impossible to define a person's character and mental ability by the outward appearance of the skull."—6.

6. What effects has the use (a) of alcohol on respiration and (b) of tobacco on the nerves?—10+8=18.