

April 30.—Paid clerk's salary per cheque, \$30.
Inventories, April 30.—Goods on hand, \$367.85;
office furniture on hand, \$38.50.

In answer to J. F. and to E. L. regarding the net loss in the book-keeping set published on March 15th: You will see that we invested \$684.25, and owed Turcotte \$21, making a net worth of \$663.25 on May 1st, but of this on May 7th we purposely gave away \$5; this, therefore, cannot be considered as a loss, but as a withdrawal, leaving \$658.25 of our original capital in the business. Now from our statement of assets and liabilities we find we are worth, on May 13th, \$558.31. If we had neither gained nor lost we should have still had \$658.25, therefore we conclude the net loss is \$658.25 - \$558.31 = \$99.94. Your difficulty must be in not entering the \$5 withdrawn in your Day Book, and therefore not carrying it to your stock account as a withdrawal, but treating it the same as the \$5 which was loss, which is evidently wrong.

Arithmetic.

1. A riding a 24-inch wheel, B a 26-inch wheel, and C a 28-inch wheel, found that after riding together a certain distance each wheel had made a certain number of complete revolutions. How far had they ridden?

2. On a hypotenuse 6 feet long it is desired to construct a right-angled triangle whose perpendicular and base are equal. Find the length of the base.

3. The difference in interest between a \$600 loan at 6 per cent. per annum and a \$750 loan at 5 per cent. per annum for the same time is \$1.05. Find the time.

4. An article listed at \$25 and bought subject to trade discounts of 20 per cent., 10 per cent., and 5 per cent., was sold for \$22.23. Required the per cent. of gain on the investment.

5. A speculator purchased 100 shares of Adams express stock at 150, brokerage $\frac{1}{2}$ per cent., held the shares until a quarterly dividend of 2 per cent. was declared and received, and then sold at 149 $\frac{1}{2}$, brokerage $\frac{1}{8}$ per cent. How much was his gain by the transaction?

(Remaining papers crowded out.)

Euclid.

1. Define *point*. What positive property has a point? What has it not? Could any number of points placed side by side form a line? Explain.

2. Define *line*. What positive properties has a line? What has it not? Could any number of lines placed side by side form a surface? Why? Is the mark made by a pencil on paper a line? Explain.

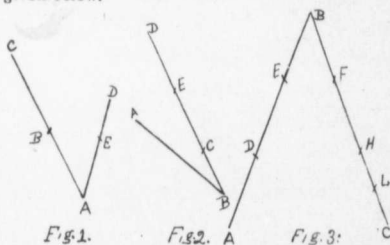
3. Define *straight line*. Can you draw two lines which intersect each other in two points? Can two straight lines be so drawn? Can two straight lines enclose a space? Hence infer a definition of a straight line. Give Euclid's definition.

4. Define *superficies or surface*. What positive properties has a surface? What has it not?

Could any number of surfaces place another form a solid? Explain.

5. Define *plane surface*. Strictly speaking, any plane surfaces exist? Name surfaces where we may speak of as plane surfaces. Name some where which we may not speak of as plane surfaces. If a straight line be drawn on a plane surface and then produced, where will the produced part lie? Would it be possible to draw a straight line on a surface that is not plane? If so, give an example.

5. Define *angle*. What are the arms of an angle? What is the vertex of an angle? On what does the size of an angle depend? Draw diagrams to show that the size of an angle does not depend in any way on the length of the arms. Name, in all the ways possible, the angles in the figures given below.



Is the angle ABC, in Fig. 3, larger than the angle EBF in the same figure? Do you increase the size of an angle by producing the arms? Draw two equal angles with unequal arms. Draw two unequal angles with equal arms. If the two arms of an angle are respectively equal to the two arms of another angle, are the two angles necessarily equal? What do you mean by a rectilineal angle? What is the opposite to a rectilineal angle called?

6. Define *right angle* and *perpendicular*. If two adjacent angles are equal, must they necessarily be right angles? Draw a figure to illustrate your answer. What do you mean by the sum of two angles, by the difference of two angles, by the bisector of an angle?

7. Define *acute*, *obtuse*, *adjacent*, *vertically opposite* angles.

Fig. 1.

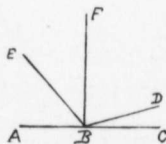
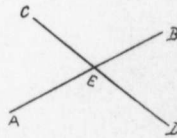


Fig. 2.



Name in the figures above all the right angles, all the obtuse angles, all the acute angles, all the adjacent angles, all the vertically opposite angles, any bisector of an angle, any perpendicular, any angles which are the sum of two other angles, and any angles which are the difference of two other angles.



Handwritten calculations and scribbles at the bottom of the page, including the number 704 and various numbers and symbols.