GRADED ARITHMETIC.

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and those that are not so formed should be drawn, and pupils must observe that parallelograms with right angles or square corners are *rectangles*. They should be led to see that all figures where square or cubic contents they have thus far found are tangles. They are now ready for the work designated on p. 27, by means of which they should discover for themselves that the area of any parallelogram can be found by *multiplying the length by the perpendicular height*.

Definitions.—In teaching a definition the object to be defined should be presented to the class, and by questions pupils should be led to observe those features of the object which must be named in the definition. For example, in teaching the definition of a square, a square surface (preferably of a cube) is presented. The pupils are led to see that (1) it has four sides, (2) that the sides are equal, (3) that its angles are right angles. From these facts the following statement may be drawn from pupils : "A square is a four-sided figure, having all its sides equal and its angles right angles." Whenever the language of a pupil's definition is faulty, lead him to see the fault by questioning or by comparison with a correct form. Definitions of rectangle, rhombus and rhomboid, p. 27, and all definitions that follow, must be developed in this way.

X. B. **Triangles**.—(1) Develop clear ideas and definitions of triangles. (2) As pupils proceed to find the relative size of a parallelogram and triangle of the same base and height, give as little assistance as possible. Ask the necessary questions, giving only such directions for finding the answers as are found to be indispensable.

X. C. **Gircles**.—(1) Develop clear ideas and definitions of circle, circumference, diameter, radius. (2) Establish the following formulæ :—

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