F (*Mensuration*).

1. A garden fence is 63 yds. long and 9 ft. 4 in. high; what will it cost to paint it on both sides at 11 cents a sq. yard?

2. How many boards 12 ft. 6 in. long by 9 in. wide would be required for a room $11\frac{1}{4}$ ft. by 10 ft.?

3. The walls of a room 15 ft. long by 14 ft. 6 in. broad and 8 ft. 6 in. high are to be painted, a window 5 ft. 6 in. by 4 ft., and a fireplace 3 ft. 6 in. by 4 ft. being deducted. How many sq. yds. of surface are to be painted?

4. What is the area of a piece of land in the form of a rhomboid 200 ft. long, if the distance between the parallel sides is 90 ft.?

5. Find area of blackboard surface in your room.

6. How many times will a wheel $3\frac{1}{2}$ feet in diameter turn in going $2\frac{1}{2}$ miles?

7. In going a certain distance a wheel $4\frac{1}{3}$ feet in diameter makes 1430 revolutions. What is the distance?

8. If the equator is 25211·34 miles in circumference, what is the length of the diameter of the earth?

9. The radius of a semicircular flower-bed is 20 feet; find its area.

10. Find the capacity of a round basket 20 in. in diameter and 28 in. deep.

11. Find the solidity of a prism whose base is 6 feet square and height 15 feet.

12. Of two pieces of land, the one a circle 18 rods in diameter, the other a triangle whose base is 24 rods and height 18 rods, which is the larger and how much?

13. What is the area of a triangular field whose base is 325 yards and perpendicular height 160 yards. Express in acres and square yards.