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MISCELLANEOUS EXAMPLES.

When the area and one of the legs are given, how do you find the other leg?

Note. Any triangle may be divided into two right-angled triangles, by drawing a perpendicular from one corner to the opposite side, as may be seen by the annexed figure :

Here, A.B.C. is a triangle, divided into two right-angled triangles, A. d C. and d B. C.; therefore, the whole base A. B. multiplied by one half the perpendicular, d C., will give the area A of the whole. If A. B.=60 feet, and d C=16 feet, what is the area ?

Ans. 480 feet.

159. There is a triangle, each side of which is 10 feet; what is the length of a perpendicular from one angle to its opposite side? and what is the area of the triangle?

Note. It is plain the perpendicular will divide the opposite side into two equal parts.

Ans. Perpendicular, S'66+feet; area, 43'3+feet. 160. What is the solid contents of a cube measuring six feet on each side? Ans. 216 feet.

When one side of a cube is given, how do you find its solid contents ?

When the solid contents of a cube are given, how do you find one side of it ?

161. How many cubic inches in a brick which is 8 inches long, 4 inches wide, and 2 inches thick? ——in 2 bricks?

163. How many bricks will it take to build a wall 40 ft. in length, 12 feet high and 2 feet thick ? Ans. 25920.

164. If a wall be 150 bricks,=100 feet in length, and 4 bricks,=16 inches in thickness, how many bricks will lay one course? -2 courses? -10 courses? If the wall be 48 courses,=8 feet high, how many bricks will build it? $150 \times 4 = 600$, and $600 \times 48 = 28800$, Ans.

165. The river Po is 1000 feet broad, and 10 feet deep, and it runs at the rate of 4 miles an hour; in what time will it discharge a cubic mile of water (reckoning 5000 feet to the mile) into the sea? Ans. 26 days, 1 hour.