

1. If the interval between the flash and report of an explosion is $6\frac{1}{2}$ seconds, how far away is the explosion, reckoning the velocity of sound to be 1090 ft. a second?
2. If sound travels $3\frac{1}{2}$ times as fast through water as through air, how long would it take for an explosion one mile away to be heard under water?
3. Lightning was seen to strike a tree $3\frac{1}{2}$ seconds before the report of thunder was heard. How far away was the tree?
4. If $\frac{3}{4}$ of the weight of potatoes is water, and $\frac{5}{8}$ of their weight is starch, how many more pounds and ounces of water than starch are there in 100 lb. of potatoes?
5. In most parts of this country a bushel of potatoes weighs 60 lb. How many pounds of starch in 80 bu. of potatoes?
6. If a wheel 10 ft. in circumference turns round 1860 times in going from one place to another, what is the distance in feet? in miles?
7. The circumference of a circle is about $3\frac{1}{2}$ times the diameter. In going from A to B, 1430 revolutions of a wheel $4\frac{1}{2}$ ft. in diameter were counted. What is the distance?
8. How many times must a carriage wheel $3\frac{1}{2}$ ft. in diameter turn in going $2\frac{1}{2}$ miles?
9. If a man works $8\frac{1}{2}$ hours a day 6 days in a week, what fraction of the week is spent in work? If one-half of the remainder of his time is given to sleep, how many hours on an average does he sleep?
10. What fraction of August has passed at 10 A.M. August 16?
11. If \$2 will buy $\frac{2}{3}$ of a yard of broadcloth, how much will a yard cost? How much will \$8.25 buy?
12. How many cubic feet of earth must be removed in digging a cellar 18 ft. 3 in. long, 12 ft. 6 in. wide, and 5 ft. 9 in. deep?
13. At \$18.40 per M., what will the boards cost which were used in the floor of your school-room? (Draw plan.)
14. From a barrel of pork weighing 200 lb. there was sold 84 lb. 6 oz. What is the remainder worth at \$8.25 a hundredweight?
15. At \$5 a ton, what will 600 lb. of coal cost? 1500 lb.? 8 cwt.? 9 cwt. 20 lb.?