

SUB-TEST TWO

FORM A

Find the answers to the problems below as quickly as you can. Do all your figuring on the margin of the page.

- If a man's salary is \$20 a week, and he spends \$14 a week, how long will it take him to save \$300?
Ans. _____ weeks
- If two pencils cost five cents, how many can you buy for fifty cents?
Ans. _____ pencils
- If a package containing twenty cigarettes costs fifteen cents, how many cigarettes can be bought for ninety cents?
Ans. _____ cigarettes
- At 15¢ a yard, how much will seven feet of cloth cost?
Ans. _____ c.
- Fifty-six pounds of camping outfit are to be carried. A, B, and C share the load in these proportions: three parts to A, two parts to B, and two parts to C. How many pounds does A carry?
Ans. _____ lbs.
- How many revolutions per minute can a steel cutting wheel of three feet circumference make without having its rim speed exceed the safe limit of 6000 feet per minute?
Ans. _____ r.p.m.
- What is the cost of two cans of spray, if each can contains two and a half pounds, and the price is five cents an ounce? (One pound equals sixteen ounces.)
Ans. \$ _____
- The rear wheel of a motor cycle is six feet in circumference. The gear wheel, attached to this rear wheel, has twelve teeth, and is driven by a sprocket wheel of twenty-four teeth. How far does the rear wheel travel for one complete revolution of the sprocket wheel?
Ans. _____ ft.
- A man spent one-eighth of his spare change for a package of cigarettes, three times as much for a meal, and then had eighty cents left. How much money did he have at first?
Ans. \$ _____
- A steel cylinder, 20 inches in diameter, is being turned on a lathe at a speed of 1000 revolutions per minute. To what speed must the lathe be changed in order to retain the same surface speed on the cylinder when it is turned down from 20 inches to 10 inches? (Circumference of a circle = $3.1416 \times d.$)
Ans. _____ r.p.m.

11. A tank is being filled at the rate of four cubic feet per second, and drained at the rate of two cubic feet per second. After two minutes, there are three hundred cubic feet of water in the tank. How much water was in the tank at the beginning of the two minutes?

Ans. _____ cubic feet

12. A submarine can go ten miles an hour under water, and twenty miles an hour above water. How long will it take it to go 100 miles, if it has to go three-fifths of the way under water?

Ans. _____ hours

13. If the formula for converting Daylight Saving Time (D) into Standard Time (S) is $S + 1 = D$, and for converting Eastern Time (E) into Central Time (C) is $E - 1 = C$, then what time is it by Central Standard Time when it is six a.m. by Eastern Daylight Saving Time?

Ans. _____ M.

14. A watch was set right at noon on Thursday. At 6 p.m. on the next day, it was thirty minutes fast. At that rate, how much will it gain in half an hour?

Ans. _____ sec.

15. How many times must $1\frac{3}{4}$ be added to $4\frac{1}{4}$ to get $16\frac{1}{2}$?

Ans. _____ times

16. A bucket two feet in diameter and three feet high is used to hoist out the earth in digging a well ten feet in diameter and thirty feet deep. How many bucketfuls must be hoisted out? (The area of a circle is 3.1416 times the radius squared.)

Ans. _____

17. A dealer bought a lot of three horses and some mules for \$600, and sold the lot for \$820. If he gained forty dollars on each horse, and fifty dollars on each mule, how many mules were there?

Ans. _____ mules

18. A certain division contains 3000 artillery, 15,000 infantry, and 1000 cavalry. If each branch is expanded proportionately until there are in all 20,000 men, how many will be added to the artillery?

Ans. _____ men

19. If it takes five men four days to dig a hundred foot drain, how many men are needed to dig a two hundred foot drain in half a day?

Ans. _____ men

20. A regiment marched 103 miles in four days. The first day, they marched eight hours at the rate of three miles an hour; the next day, nine hours at the same rate; the third day six hours at four miles an hour. If they marched at four miles an hour on the fourth day, how many hours did they march on that day?

Ans. _____ hours

IF YOU FINISH WORK BEFORE TIME IS CALLED,
RE-CHECK YOUR ANSWERS