

135 rods in circumference, begin to go round it, the same direction at the same time; A, at the rate of 11 rods in 2 minutes, and B, of 17 rods in 3 minutes. How many rounds will each make before the one will overtake the other? Do.

(17.) A silver globe worth 25 cents per square inch, is filled with wine worth \$3 per gallon; the silver of the globe is just equal in value to the wine. What is the diameter of the globe? A. F. B.

(18.) What is the exact location of Moravian Town where the British were defeated, Oct. 5th 1813? I. R.

(19.) A. B. bought a house, through a building society, for £300, agreeing to pay back loan and interest at the rate of £1 1s. 9½d. per £100 per month for 12½ years. The £300 was advanced in full, and the legal expenses of the lease, mortgage, &c., were £21 11s. 6d., which sum must be added (without interest) to the total paid. What would be the whole sum he had to pay: the rate per cent. upon the whole, and the rate per cent. on the balance left unpaid at the end of each year? Selected by J. R.

(20.) Find six weights that will weigh any number of lbs from 1 lb to 364 lbs. J. MCARTHUR, LOBO.

(21.) Explain the grammatical construction and origin of "That head of yours," "Those eyes of hers." J. B. SHOTWELL, ADELAIDE.

(Contributed by Mathematical Editor.)

(22.) AN OLD ACQUAINTANCE OF OUR IRISH FRIENDS.—"And now" said the strange school-master, throwing off his frieze jock, and exhibiting a muscular frame, cased in a well worn black coat, "maybe the Englishman would like a taste of the scuffle?"

"O no, no! By no means! What do they mean Johnson? I hope you have influence with them."—*Carleton's Traits and Stories of the Irish Peasantry.*

A, in a scuffle, seized on ⅔ of a parcel of sugar-plums, B snatched ⅓ of it out of his hands, and C laid hold on 3-10 more. D ran off with all A had left except 1-7 which E afterwards secured slyly for himself; then A and C jointly set upon B, who in the conflict let fall ½ he had, which was equally picked up by D and E—B then kicked down C's hat and to work they went anew for what it contained; of this A got ¼, B ⅓, D 2-7, and C and E equal shares of what was left of that stock; D then struck ⅔ of what A and B last acquired out of their hands, they with difficulty recovered ⅓ of it in equal shares again, but the other three carried off ½ a piece of the same. Upon this they called a truce, and agreed that the ½ of the whole left by A at first, should be equally divided among them. How

much of the prize after this distribution remained with each of the competitors?

(23.) Given the price of any article in pounds, shillings and pence, English, per 112 lbs, to find the equivalent per lb. in Canadian currency—Exchange being calculated at 109. Rule.—Reduce the price given to half-pence. From this number take one-tenth of itself. The remainder, when pointed off two figures from the right, will give the required value per lb. in cents. TORONTO GLOBE.

Prove the above.

(24.) What is the relation of *from* in 'He kicked the cat from under the table.' OLD DOMINIE'S PUZZLE.

(25.) Do conjunctions *now* always join sentences? If so parse *and* in 'Sugar and water is sweet,' 'The fence runs between his garden and mine?'

(26.) What was the answer of the Scottish Parliament at Norham (and again at Upsettleton) to the claim of Edward I to be liege lord of Scotland? Hume says *silence*, had he any authority for this?

(27.) "He (William I) richly rewarded those to whom he owed his crown, but he took care that they should never be able to bring his crown into jeopardy. By two consummate strokes of policy he guarded against the dangers he saw rife in every other country, and made England the most united kingdom in Western Christendom." What were these strokes of policy?

(28.) Give the rule for finding the G. C. M. and the L. C. M. of two or more fractions.

CURIOSITIES.

(1.) The following Magic square of Ten was made some time ago by the editor. It is the most "complete" he has ever seen, but as the filling in is so easy, it is not likely new. If a Mathematical Department is opened in the TEACHER, rules for making these squares may be given. Any one can fill them in who can work scales in Sangster's National Arithmetic.

90	14	89	17	100	91	5	4	93	2
83	39	69	28	66	35	73	32	62	18
16	34	60	37	71	30	64	41	67	85
15	78	48	57	19	82	44	53	23	86
88	51	25	80	46	55	21	76	50	13
9	47	77	20	58	43	81	24	54	92
95	26	52	45	79	22	56	49	75	6
7	70	40	65	27	74	36	61	31	94
3	59	33	72	38	63	29	68	42	98
99	87	12	84	1	10	96	97	8	11

Take away the border and we have a square of eight; quarter and there are four squares of four; quarter again, and pick out, either symmetrically or semi-symmetrically, a sixteenth from each quarter;