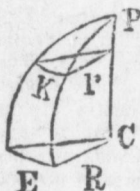


NOVA SCOTIA (69) ALMANACK.

I have used in the preceding operation, tables calculated for the declinations, at the mean noon of Paris. and as Mr. Owens' first place of observation does not differ much in longitude from Paris, so the effect of this difference upon the result will be very inconsiderable.*

Then if the second observation was made before noon, we have

App. time at second place	8 h. 13' 53"
Equation of time, July 17	0 5 43
Mean time at second place	8 19 41
First	12 6 46
Diff. of time bet. the two places	3 47 5
Difference of longitude	56 46 15
=	3406' 25



Now if E be an ark of the equator and K, an ark of the parallel of $54\frac{1}{2}^\circ = 1$ of lat intercepted by the same meridians we have

$$\frac{R}{E} = \frac{r}{R} = \cos l \quad K = E \cos l$$

and if E be expressed in geographical miles, or minutes of a degree upon the equator; $R = \frac{691}{660} \cdot E$

$\cos l$ in statute miles nearly. Hence if $E = 3406' 25$, $R = 2278.02 =$ distance between the two places

*[Mr. McI. in his MS. has given a formula by which the operation might be rendered perfectly correct: but as the tables as applied in this instance, are sufficiently correct for any practical purpose, so this portion of his MS. has not been inserted.]—Ed.

Solution of Question No. 5, by J. Owens, Royal Sap. & Miners.

This question is (in my opinion self-evident), for before I can proceed to its investigation, I must assume a right angled triangle whose base and perpendicular are respectively as 8 and 6, and if these are 8 and 6 the Hypotenuse will be 10 (Euclid 1 and 47) The area of this triangle is 24; and 24 is also the perimeter. Hence the question is solved.

ANSWER TO CHARADE.

The Poet sings, elate, the graceful VINE;
The IVY tendrils round the turret twine;
CHRYSANTHIUM buds adorn the winter's eve;
The TOPAZ, gold-tinged, glows beneath the wave;
In tropic groves the swelling ORANGE grows;
The Nightingale, 'tis said, adores the ROSE;
The INDIAN scowls, the chief of savage glen,
And ANGELS are the link 'tween God and men.
The initials placed in order give a name,
Already highest on the scroll of Fame,—
And well VICTORIA claims the patriot's flame.

Roland.

Mr Mc Iver has furnished an Algebraical solution of Question No 5, for Young Mechanics. The solution would occupy more space than can be spared, and one much more brief has been furnished by another correspondent,—to whom, and to Mr Melver, we owe many thanks for their attention to this department—Ed: