

In second case only x lbs. go free as all luggage belongs to one man.

$$\therefore 560 - x = \text{excess.}$$

$$y(560 - x) = \text{Cost} = 230d. \quad (2.)$$

$$\therefore 560 - xy = 230d.$$

$$560y - 2xy = 180d. \quad (1.) \quad z$$

$$380y - xy = 90.$$

Subtract the first from the second

$$560y - xy = 230d.$$

$$280y - xy = 90$$

$$280y = 140$$

$$y = \frac{1}{2} \therefore \frac{1}{2}d. \text{ per lb.} = \text{cost of excess.}$$

Substitute this value for y in equation No. 1.

$$140 - \frac{x}{2} = 90$$

$$280 - x = 180$$

$$x = 100 \text{ lbs. which go free.}$$

Let x yds. per sec. be A's rate.

" y " " " B's "

In first race B runs 1740 yds. and A 1760 yds. and A wins by 30 sec. (that is takes 30 sec. less than B).

$$\text{A's time} = \frac{1760}{x} \text{ and B's time} = \frac{1740}{y}$$

$$\therefore \frac{1760}{x} + 30 = \frac{1740}{y} \quad (1.)$$

Second, A runs 1760 yds. and B runs $1750\frac{6}{11}$ yds.

$$\text{A's time} = \frac{1760}{x} \text{ and B's} = \frac{1850\frac{6}{11}}{y} \text{ But B having}$$

a start of 32 sec. takes that much longer than A for his race.

$$\therefore \frac{1760}{x} + 32 = \frac{1750\frac{6}{11}}{y} \quad (2.)$$

Subtract the second from the first.

$$\frac{1760}{x} + 30 = \frac{1740}{y}$$

$$\frac{1760}{x} + 32 = \frac{1750\frac{6}{11}}{y}$$

$$-2 = -\frac{10\frac{6}{11}}{y}$$

$$2y = \frac{10\frac{6}{11}}{y}$$

$$y = \frac{5\frac{3}{11}}{y} \text{ B's rate in yds. per sec.}$$

Substitute this value for y in equation No. 1.

$$\frac{1760}{x} + 30 = \frac{1740}{5\frac{3}{11}} = \frac{1760}{x} + 30 = 330$$

$$1760 + 30x = 330x$$

$$-300x = 1760$$

$$x = 5\frac{8}{11}$$

A's rate in yds. per sec.

$$\frac{5\frac{8}{11}}{1} \times \frac{3600}{1760} = 12 \text{ miles per hr.}$$

A. R. What o'clock is it when the time from noon is $9/11$ of the time to midnight?

Time from noon to midnight = 12 hrs. If the time from now to midnight be divided into 11 parts, their time from noon to now = 9 such parts. Then the 12 hrs. = 11 + 9 such parts = 20/11.

$$\text{If } \frac{20}{11} = 12 \text{ hrs.}$$

$$\frac{1}{11} = \frac{12}{20} \text{ hrs.}$$

$$\text{And } \frac{9}{11} = \frac{108}{20} = 5\frac{4}{5} \text{ hrs.}$$

\therefore present time is 24 minutes past 5. *Ans.*

Time from now to midnight = $12 - 5.4 = 6.6$, that is 6 hrs. 36 min. And $5.4 = 9/11$ of 6.6.

C. B. 1. "Hyphenated Americans." A term lately applied to citizens of the United States, born in another country; as Irish-American, German-American. It often implies that the person gives allegiance and sympathy to the land of his birth rather than to his adopted country.

2. The language spoken in Bulgaria is Bulgarian, a language of the Slavonic group, to which Russian and Polish also belong.

3. *Italia irredenta* means unredeemed Italy, and is a term used in speaking of Trieste and the Tyrol which are largely Italian by blood and language, but are under Austrian rule. See Current Events in REVIEW for June, 1915, page 20 and August, 1915, page 44.

4. *Persona non grata*, one who is not in favour; literally, an unpleasing person. *Soixante*, sixty; *quinze*, fifteen; *soixante-quinze*, seventy-five. *Piou-piou*, a French infantry soldier.

C. W. M. See Current Events in this issue.

K. C. George Ridout & Co, 77 York Street, Toronto; The Perry Pictures Co., Malden, Mass.

[Several questions requiring answers by mail have had to go unnoticed because the writers omitted to enclose stamps].