p = per of base.

= length

A' (124);

ller base.

height of

V A 5/1)

of the

 $T = \frac{\pi}{6}$

ent, and

where zone,

 $V = (d^2 - \frac{1}{3}h^2) \frac{\pi h}{4} (138); \text{ or } V = (d'^2 + \frac{2}{3}h^2) \frac{\pi h}{4} (139);$ where d and d' = the diameters of the sphere and of the segment. Spheroid. $V = \frac{\text{RPE}^2}{6} (140)$, where $P = \text{Polar and } E = \text{Equa-torial axis.}^*$

EXAMPLES.

Note.—The numbers inclosed within parentheses, besides serving to number the questions, indicate the Formula to be used.

(1) Find the fourth proportional-

to 9, 36 and 17. Ans. d=68:

Also to 11, 165 and 14. Ans. d=210.

- (2) What is the Interest of £537 12s. 6d. for 5 years at 4 per cent? Ans. I=£107 10s. 6d.
- (3) What principal will produce £117 1s. 10³/₄d. in 7 years at 6 per cent? Ans. P=£278 16s.
- (4) At what rate per cent will £672 16s. 4d. produce £518 1s. 43d. in 7 years? Ans. r=11 per cent.
- (5) In what time will £2000 produce £280 at $3\frac{1}{2}$ per cent? Ans. t=4 years.
- (6) What is the amount of £219 16s. for 3 years at 6 per cent? Ans. A=£259 7s. 31d.

* A spheroid is generated by the revolution of an ellipse about one of its axes; the fixed axis is called the Polar, the revolving one the Equatorial. In an oblate spheroid the transverse axis revolves : in a prolate spheroid the conjugate.