

زمره/کتاب

10175

$R=2$

$$\frac{dr}{dt} = \frac{1}{r} \times r^2 = r = \cos \theta \quad (1)$$

$$\frac{a_r}{r} = \frac{1}{r} = 1 \quad (2)$$

$$\frac{dr}{dt} = \frac{1}{r} \times r^2 = r = \cos \theta$$

$$\frac{1}{r} = \cos \theta \quad n=1$$

$$\frac{a_r}{r} = r^2$$

$$r^2 = 1 \quad r=1$$

$$\sum_{i=1}^n \frac{1}{r^2} = \sum_{i=1}^n \frac{1}{r^2} = \frac{1}{r^2} \times n$$

$$1, 0$$

$$a_1 = a_1 \times r^2 = 94 \times 2 = 188$$

$$a_1 \times a_2 \times a_3 \times a_4 \times a_5 = 1 \times 2 \times 3 \times 4 \times 5$$

$$a_1 \times a_2 = 1 \times 2 = 2$$

$$a_1 = 1 \quad (1)$$

$$a_1 \times a_2 = a_1^2 = 1$$

$$a_1 \times a_2 = 1 \quad (2)$$

$$\frac{x+1}{a} = \frac{x}{a} \quad \frac{1-x}{a} = \frac{x}{a}$$

$$x^2 = (x+1)(1-x)$$

$$1, \sqrt{0}$$

$$a_1 + a_2 = 1$$

$$a_1 \times a_2 = 1$$

$$x^2 - 1 = x^2 - 1 \rightarrow x = \frac{1 \pm 1}{2}$$

$$f(x) = 1$$

$$\frac{1}{r} = 2$$

$$1, 0$$

$$\frac{f(1/r)}{f(1/r)}$$

$$\frac{(1/r)(1/r-1)}{r(1/r)} = \frac{1}{r}$$

$$x^2 + 1 = 10 \rightarrow x = 3$$

سوال ۷

$$a_1 = \frac{a}{q}$$

$$a_2 = a$$

$$a_3 = aq$$

$$\frac{a}{q} \times a \times aq = 27 \rightarrow a^3 = 27 \rightarrow \underline{a = 3}$$

$$\text{if } a = 3 \rightarrow \frac{3}{q} + 3 + 3q = 12 \rightarrow 3q^2 - 10q + 3 = 0$$

$$\Delta \rightarrow \frac{10 \pm \sqrt{100 - 36}}{4} = \frac{10 \pm 8}{4} \rightarrow \begin{matrix} 3 \\ \frac{1}{3} \end{matrix}$$

$$q = 3 \rightarrow \text{دنبه} = 1, 3, 9$$

$$q = \frac{1}{3} \rightarrow \text{دنبه} = 9, 3, 1$$

سوال ۹

$$\begin{array}{ccccccc} a, & aq, & aq^2, & aq^3, & aq^4, & \dots & aq^{n-2}, & aq^{n-1} \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & & \downarrow & \downarrow \\ a(q-1) & aq(q-1) & aq^2(q-1) & aq^3(q-1) & aq^4(q-1) & & aq^{n-2}(q-1) & aq^{n-1}(q-1) \end{array}$$

مشاهده می شود $a(q-1)$ ثابت است و عبارت در q ضرب می شود

پس قدر نسبت q است

$$S_1 = \frac{1 - (q^n - 1)}{q - 1} = \frac{1 - q^n}{1 - q}$$

سوال ۸

$$\text{ب } (a_1 \times a_{10})^{\Delta} = (a_1^2 \times q^9)^{\Delta} = (2^2 \times 5^9)^{\Delta} = 2^{\Delta} \times 5^{9\Delta}$$

$$a + a + d + a + 2d + a + 2d + \dots + a + (n-1)d$$

١. ج ٢

$$(1 + 1 + \dots + (n-1))d =$$

مجموعه اعداد من ١ إلى n-1

$$(d) \frac{(n-1)(n-1+1)}{2} = \frac{n(n-1)}{2}d$$

$$na + \frac{n(n-1)d}{2} = \frac{n}{2}(2a + (n-1)d)$$

$$S_n = \frac{n}{2}(2a + (n-1)d)$$

$$S_n = a, \cancel{aq}, \cancel{aq^2}, \cancel{aq^3}, \dots, \cancel{aq^{n-2}}, \cancel{aq^{n-1}} \quad (1)$$

$$S_n q = \cancel{aq} + \cancel{aq^2} + \cancel{aq^3} + \cancel{aq^4}, \dots, \cancel{aq^{n-1}}, aq^n$$

$$S_n q - S_n = aq^n - a \rightarrow S_n(q-1) = a(q^n - 1)$$

$$S_n = \frac{a(q^n - 1)}{q - 1}$$