

Handwritten signature/initials

1 $\textcircled{1}$ $\frac{1}{+} \frac{p}{-} \frac{p}{-} \frac{1}{+}$ $\rightarrow 1 - a + b = \dots$ $\rightarrow 9 - 3a + b = \dots$
 2 $\rightarrow 9 - 3a + b = \dots$ $\rightarrow 4 - 2b = \dots$ $\rightarrow b = 2$
 3 $\rightarrow a + b = \sqrt{\dots}$ $\rightarrow a = 2$

6 $\textcircled{2}$ $\xrightarrow{-1} ((k-r)-1 + m-1) (-1 - 3n)^r = \dots$
 7 $\rightarrow (k-r+m-1) (-1 - 3n)^r = \dots$ $n = -\frac{1}{3}$
 8 $\rightarrow (k-r+m-1) (-1 - 3n)^r = \dots$ $\rightarrow k+r-9=0$
 9 $kn = -1 \Rightarrow n = -\frac{1}{k} \rightarrow m = 9 - \Sigma k$
 10 $y = ((k-r)m + (9 - \Sigma k) - 1) (m + \frac{1}{k})^r \Rightarrow y = ((k-r)m + \lambda - \Sigma k) (m + \frac{1}{k})^r$
 11 $((k-r)m + \lambda - \Sigma k) = \lambda - \Sigma k > 0 \Rightarrow k > 4 \rightarrow k=1$

12 $k=1, m=9-\Sigma=0, n=-\frac{1}{1} \Rightarrow \frac{m}{n} + k = \frac{0}{-1} + 1 = -10 + 1 = -12$

14 $\textcircled{3}$ $-\frac{1}{r} x^r + 2m + 4 > \frac{p}{r}$
 15 $-x^r + \Sigma x + 12 > \sqrt{\dots}$
 16 $x^r - \Sigma x < \dots$
 17 $\Delta = \Sigma + 4r = 20r$
 18 $x = \frac{\Sigma \pm \sqrt{\Delta}}{2} = \frac{\Sigma \pm \sqrt{20r}}{2}$
 19 $x = \frac{\Sigma \pm \sqrt{20r}}{2}$
 20 $x = \frac{\Sigma \pm \sqrt{20r}}{2}$
 21 $x = \frac{\Sigma \pm \sqrt{20r}}{2}$

21 $x(x^r - x - 1) + \mu$
 22 $\rightarrow \dots$

23 $\textcircled{2}$
 24 $\textcircled{1} \rightarrow 1 - w + 1 + e = \dots$
 25 $\textcircled{2} \rightarrow wv - rv - a + w = \dots$
 26 $\textcircled{3} \rightarrow -1 - w + 1 + e = \dots$
 27 $f(a+b) = -p$
 28 $(a,b) = (1, 2p)$
 29 $\rightarrow \frac{a}{b} = \frac{1}{2p} = r \rightarrow f(r) = -p$

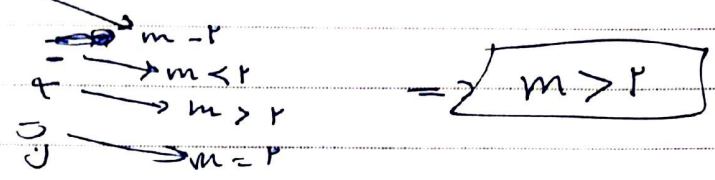
28 \textcircled{a} $\Sigma a - 1 < a - 1 + 1 < \dots$
 29 $\Sigma a - 1 < a - 1 + 1 < \dots$
 30 $a - 1 < \dots \Rightarrow a < 1$
 31 $0 < \dots \rightarrow (a-1)^r - \Sigma(a-1)(1) \rightarrow (a-1)(a-d) < \dots$
 32 $a < 1$
 $1 < a < d \Rightarrow \emptyset$
 $\Rightarrow 1 < a < d$

Handwritten signature

4) $m \left(\frac{m^r + m}{m-1} \right) \rightarrow \dots$

$$\frac{m^{\xi} + m^r}{m-1} \rightarrow m^r (m^r + 1) \Rightarrow \text{اعداد صحیح}$$

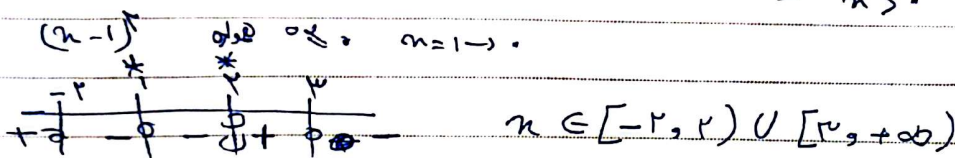
$m = p \cdot q$



5)
$$\frac{(n-1)(n+r)}{(m^r - n - 1)(n-1)^r} = \frac{(m-r)(n+r)(n-1)^r}{(m^r + n + 1)(r-n)^r}$$

$\Delta = 1 - \xi = -r$

$n < r$
 $-n > 0$



6) $f(n) = \frac{r n^r - r n}{n^r + \xi} \quad y = r$

$$\frac{r n^r - r n}{n^r + \xi} < r$$

$$r n^r - r n < r(n^r + \xi) \rightarrow r n^r - r n < r n^r + r \xi \rightarrow -r n < r \xi$$

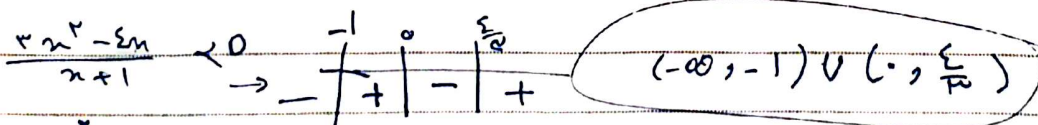
$$(n - \xi)(n + r) < 0$$

$$-r n < \xi$$

$$(-r, \xi) \rightarrow b - a = \xi + r \geq 1$$

7) $-1 < \frac{r n^r - \xi n}{n+1} < 0$

$\frac{n(n-\xi)}{n+1} \rightarrow n=0, n=\xi$



$$\frac{r n^r - \xi n}{n+1} > -1 \rightarrow \frac{r n^r - \xi n + n + 1}{n+1} > 0 \rightarrow \frac{r n^r - \xi n + n + 1}{n+1} > 0$$

$$n+1 > 0 \Rightarrow n > -1 \quad (-1, +\infty)$$

$\Delta = 9 - 12 = -3$
 $\Delta < 0 \Rightarrow$

$$\Rightarrow (0, \frac{\xi}{r})$$

Handwritten signature

1 (1) $\frac{n^2 - 1}{n} \leq n$

2

3 $\frac{n^2 - 1 - n^2}{n} \leq \dots \rightarrow \frac{n^2 - n - 1}{n} \leq \dots$

4

5 $n - \delta = 0 \Rightarrow n = \delta$

6 $n + r = 0 \Rightarrow n = -r$

7 $n = 0$

8 $\Rightarrow (-\infty, -r] \cup (0, \delta]$



$\Rightarrow n < -r$
 $0 < n < \delta$
 $(-\infty, -r)$

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32