WvP-evsjv e¨vsK - c_g Av‡jv MwYZ Drme 2010

রাজশাহী আঞ্চলিক গণিত অলিম্পিয়াড

Av‡qvRK: evsjv‡`k MwYZ Awj¤úqvW KwgwU

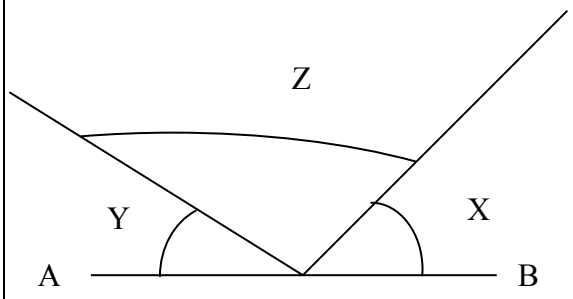
ক্যাটাগরি: প্রাইমারি (৩য়-৫ম শ্রেণী) **সময়: ১ ঘন্টা ১৫ মিনিট**

নাম(বাংলায়): **শ্রেণী(২০০৯ সাল):**

Name (In English): **Registration No:**

[এই উত্তরপত্রের নির্দিষ্ট স্থানে উত্তর লিখতে হবে। খসড়ার জন্য পৃথক কাগজ ব্যবহার করতে হবে এবং তা জমা দিতে হবে। সকল সংখ্যা ইংরেজীতে লেখা হয়েছে। সবাইকে নিজ নিজ উত্তরপত্র জমা দিতে হবে।]

bs	ck	DËi
1.	cvPwU wiKkv cwZ N›Uvq h_vµ‡g $\frac{10}{20}, \frac{20}{30}, \frac{30}{40}, \frac{40}{50}, \frac{50}{60}$ gvBj P‡j| me‡P‡q dz¬ZMvgx wiKkvi ‡eM me‡P‡q axiMvgx wiKkv ‡e‡Mi KZMY? Five rickshaws run at a speed of $\frac{10}{20}, \frac{20}{30}, \frac{30}{40}, \frac{40}{50}, \frac{50}{60}$ miles per hour respectively. Find the ratio of the speed of the fastest rickshaw to the slowest rickshaw.	$\frac{5}{3}$
2.	GKwU ev‡· 4 †_‡K 45 chš Í 4 Gi ¸wYZK (4 Øviv wefvR¨) msL¨v¸‡jv ivLv nj| ev‡· †gvU KqwU msL¨v Av‡Q Ges ev‡· _vKv msL¨v¸‡jvi †hvMdj KZ? There are all the multiples of 4 from 4 to 45 in a box. How many numbers are there in the box? What is the summation of all numbers which are in the box?	11, 264
3.	1 †_‡K 72 Gi g‡a¨ ‡gvU KZwU msL¨v Av‡Q hviv 4 Gi ¸wYZK wKš 2 Gi ¸wYZK bq? What is the total number of the numbers from 1 to 72 which are divisible by 12 but not by 6?	0
4.	2, 3, 4, 5, 6 GB cvPwU AsK ‡_‡K cwZevi `BwU K‡i AsK wb‡q †gvU KqwU abvZ¥K AcKZ fMvsk ˆZwi Kiv hv‡e hv‡`i gvb 1 Gi †P‡q Kg? How many positive improper fractions can be made using any two of the five digits 2, 3, 4, 5, 6 at a time?	10
5.	*x, y, z* wfb wfb ‡gŠwjK msL¨v †hLv‡b $x + y = z$ Ges $x < y < z$| *x, y, z* Gi gvb mewbg KZ n‡Z cv‡i? If *x, y, z* are three different prime numbers satisfying $x + y = z$ and $x < y < z$, then what is their minimum value?	2, 3, 5
6.	6-Gi Drcv`K ‡gvU 4wU: 1, 2, 3, 6 Ges †gŠwjK Drcv`K ïagvÎ `BwU: 2, 3	105 Gi me‡gvU KZ¸‡jv Drcv`K Av‡Q? The number 6 has four factors 1, 2, 3, 6 and 2, 3 are the only prime factors. How many factors 105 do have?	8
7.	16 wW‡m¤i evsjv‡`‡ki weRq w`em| 16/12/1971 Zwi‡L evsjv‡`k ¯vaxb nq| 16,12 Ges 2010 Gi ¸Yd‡ji ‡gvŠwjK Drcv`K¸‡jv wbYq Ki| 16th December is the Victory Day of Bangladesh. Bangladesh achieved its independence on 16/12/1971. Find out all the prime factors of the product of 16, 12 and 2010.	2, 3, 5, 67

bs	ck	DËi
8.	Qvi‡cvKv R‡b¥i ciw`b †_‡KB cwZw`b GKwU K‡i ev"Pv †`lqv ïi K‡i| Qvi‡cvKv M‡elK wg: `x‡ck 17 wW‡m¤i GKwU ev‡· m`¨ Rb¥ †blqv GKwU Qvi‡cvKv †i‡L w`‡jb| 21 wW‡m¤i †k‡l H ev‡· KqwU Qvi‡cvKv _vK‡e? A bug starts breeding on the very next day of its birth. On 17th December bug researcher Mr. Dipesh kept a new born bug in a box. What will be the number of bugs in that box after 22nd December?	16
9.	 ∠Z = 80⁰ Ges ∠X = 3∠Y n‡j ∠X Gi cwigvc KZ? ∠Z = 80⁰and ∠ X = 3∠Y. Then find the value of the ∠X.	75⁰
10.	GKwU N‡i 4 Rb AwZw_ e‡m Av‡Q| G‡`i c‡Z¨‡K nq imgvjvB cQ›` K‡i, bv nq ivR‡fvM cQ›` K‡i| Z‡e AšÍZ GKRb ivR‡fvM cQ›` K‡i| hw` †h‡Kvb `BR‡bi AšÍZ GKRb imgvjvB cQ›` K‡i Zvn‡j AwZw_‡`i †gvU KZRb ivR‡fvM cQ›` K‡i? 4 visitors are sitting in a room. Each one likes *ROSMALAI* or *RAJVOG*. At least one likes *RAJVOG*. Given that between any two students at least one likes *ROSMALAI*. How many visitors like *RAJVOG*?	1
11.	hw` *a* Ges *b* DfqB we‡Rvo msL¨v nq wb‡Pi †KvbwU Aek¨B we‡Rvo n‡e? If *a* and *b* are both odd numbers, which of the following must be an odd integer? *i)* $(a + b)^2 - 5$ *ii)* $a^2 + b^2$ *iii)* $(a + 1)^2 - (b + 1)^2$ *iv)* $(a - b + 1) - 9$ *v)* $(a + 1) \times (b + 1) - 2$	*i)* $(a + b)^2 - 5$
12.	MÖYZ Awj¤úqv‡W gfv‡mi GKwU `j‡K mgvb m`m¨ wewkó 8 wU `‡j fvM Kiv hvq, Avevi mgvb m`m¨ wewkó 12 wU `‡jI fvM Kiv hvq| H `‡j †gvU gfv‡mi msL¨v b¨vbZg KZ n‡Z n‡e? A group of MOVers can be divided into 8 teams with an equal number of MOVers in each team or into 12 teams with an equal number of MOVers in each team. What is the lowest possible number of MOVers in the group?	24

WvP-evsjv e¨vsK - c_g Av‡jv MwYZ Drme 2010

রাজশাহী আঞ্চলিক গণিত অলিম্পিয়াড

Av‡qvRK: evsjv‡`k MwYZ Awj¤úqvW KwgwU

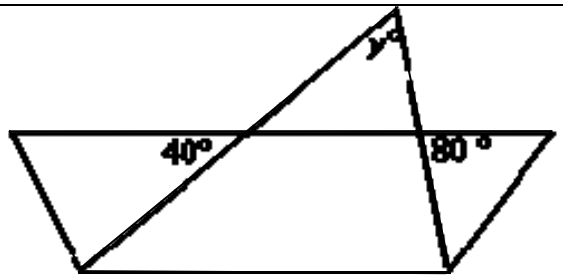
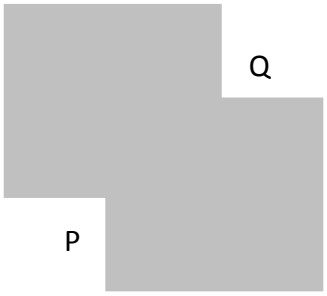
ক্যাটাগরি: জুনিয়র (৬ষ্ঠ-৮ম শ্রেণী) **সময়: ১ ঘন্টা ১৫ মিনিট**

নাম(বাংলায়): **শ্রেণী(২০০৯ সাল):**

Name (In English): **Registration No:**

[এই উত্তরপত্রের নির্দিষ্ট স্থানে উত্তর লিখতে হবে। খসড়ার জন্য পৃথক কাগজ ব্যবহার করতে হবে এবং তা জমা দিতে হবে। সকল সংখ্যা ইংরেজীতে লেখা হয়েছে। সবাইকে নিজ নিজ উত্তরপত্র জমা দিতে হবে।]

bs	ck	DËi
1.	MwYZ Awj¤úqv‡W gfv‡mi GKwU `j‡K mgvb m`m¨ wewkó 6 wU `‡j fvM Kiv hvq, Avevi mgvb m`m¨ wewkó 12 wU `‡j I fvM Kiv hvq| H `‡j †gvU gfv‡mi msL¨v b¨bZg KZ n‡Z n‡e? A group of MOVers can be divided into 6 teams with an equal number of MOVers in each team or into 12 teams with an equal number of MOVers in each team. What is the lowest possible number of MOVers in the group?	12
2.	Pvi A‡¼i †h KqwU msL¨v Av‡Q hv‡`i †_‡K 12 we‡qvM Ki‡j Zv 12 w`‡q, 13 we‡qvM Ki‡j Zv 13 w`‡q Ges 19 we‡qvM Ki‡j Zv 19 w`‡q fvM hvq †m msL¨v¸wj wbYq Ki| Find all the 4-digit numbers which are divisible by 12, 13 and 19 if 12, 13 and 19 are subtracted from the numbers respectively.	2964, 5928, 8892
3.	egeg ¯vDU‡`i m‡¤§j‡b wM‡q‡Q| †mLv‡b c‡Z¨K ¯vDU Ab¨ mevi mv‡_ Kig`b Kivi K_v| ‡KD †KD Avevi Kig`b K‡iwb| me‡gvU Kig`‡bi msL¨v 2 n‡j mewbg KZM‡jv Kig`b nqwb? Boomboom joined Scout Jamboree. Every scout was said to handshake with each other. Some of them did not do. The total number of handshakes was 2. Find the minimum number of handshakes which were not done?	1
4.	AfxK, m`xß I dimv` AÜKvi iv‡Z GKwU †mZ cvi n‡e| †mZ cvi n‡Z Zv‡`i h_vµ‡g 10, 12 I 13 wgwbU mgq jv‡M| Zv‡`i nv‡Z †h UPjvBUwU Av‡Q †mwUi Av‡jv‡Z eo‡Rvo `BRb GKmv‡_ †mZ cvi n‡Z cv‡i| wZbR‡bi †mZwU cvi n‡Z mewbg KZ mgq jvM‡e? Avik, Sudipta and Farshad will cross a bridge in the night. They need 10, 12 and 13 minutes respectively to cross the bridge. They have only one torch light. It is possible only for 2 persons to cross together with that torchlight. Find the smallest possible time needed for these 3 persons to cross the bridge.	35
5.	4 U 7 1 6 2 + N 2 3 ..... 1 2 2 2 hw` U Ges N `wU wfb AsK wb‡`k K‡i Zvn‡j Gi gvb wbYq Ki| If U and N represent single digits in the correctly worked computation above what is the value of N and U?	U=3 N= 6
6.	2x + z = 2y Ges 2x + 2y + z = 20 n‡j y Gi gvb wbYq Ki| If 2x+z=2y and 2x+2y+z=20, what is the value of y?	5
7.	1 †_‡K 150 Gi g‡a¨ ‡gvU KZwU msL¨v Av‡Q hviv 15 Gi ¸wYZK wKšÍ 5 Gi ¸wYZK bq? What is the total number of the numbers from 1 to 150 which are divisible by 15 but not by 5?	0

bs	ck	DËi
8.	 ∠ *y* Gi cwigvc KZ? In the figure above, what is the value of ∠ *y*?	60^0
9.	 cv‡ki wPÎwU‡Z mgvb evû wewkó GKwU eM Aci GKwU e‡Mi Dci Ae¯vb Ki‡Q| P I Q e‡Mi evûi ga¨we›`y| evûi ‰`N¨ 6 GKK| Qvqv Av”Qw`Z c‡iv GjvKvwUi ক্ষেত্রফল wbYq Ki| Two squares of length 6 are put in a position as the figure. P and Q are the midpoint. Find the total shaded area.	63
10.	hw` *a* Ges *b* DfqB we‡Rvo msL¨v nq wb‡Pi †KvbwU Aek¨B we‡Rvo n‡e? If *a* and *b* are both odd numbers, which of the following must be an odd integer? *i)* $(a + b)^2$ *ii)* $a^2 + b^2$ *iii)* $(a + 1)^2 - (b + 1)^2$ *iv)* $(a - b + 1)-8$ *v)* $(a + 1) \times (b + 1) -4$	*iv)* $(a - b + 1)-8$
11.	n hw` 1 †_‡K 13 chšÍ msL¨v¸‡jvi ¸Ydj nq, Zvn‡j n Gi †gvU KZ¸‡jv †gŠwjK Drcv`K Av‡Q? If n is the product of the integers from 1 to 13, inclusive, how many prime factors greater than 1 does n have?	6
12.	¸ej cwZw`b UvKvi ev‡· Av‡Mi `B w`‡bi mgvb cwigvb UvKv Rgv K‡i| c_g `B w`b ¸ej 1 UvKv K‡i ev‡· ‡i‡LwQj| Aóg w`b †k‡l ¸eji ev‡· †gvU KZ UvKv Rgv nj? ¸ej cwZw`b M‡o KZ UvKv K‡i Rgvj? Everyday Gublu saves money in her money bank. Every day he saves as much as he saved in last two days. Gublu saved taka 1 on first two days. What will be the total amount of money in his bank after eight days? What is the average amount of money that he saved everyday?	54; $^{54}/_8$=6.75

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রাজশাহী আঞ্চলিক গণিত অলিম্পিয়াড

Av‡qvRK: evsjv‡`k MwYZ Awj¤úqvW KwgwU

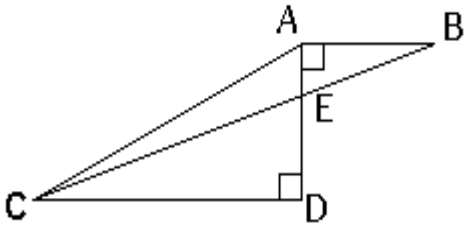
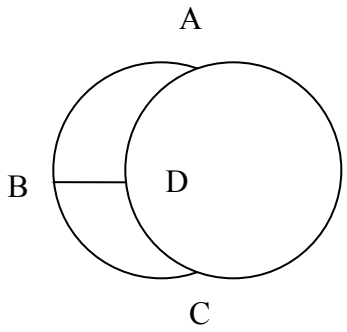
ক্যাটাগরি: সেকেন্ডারি(৯ম-১০ম শ্রেণী) **সময়: ১ ঘন্টা ১৫ মিনিট**

নাম(বাংলায়) **শ্রেণী(২০০৯ সাল):**

Name (In English): **Registration No:**

[এই উত্তরপত্রের নির্দিষ্ট স্থানে উত্তর লিখতে হবে। খসড়ার জন্য পৃথক কাগজ ব্যবহার করতে হবে এবং তা জমা দিতে হবে। সকল সংখ্যা ইংরেজীতে লেখা হয়েছে। সবাইকে নিজ নিজ উত্তরপত্র জমা দিতে হবে।]

bs	ck	DËi
1.	hw` m Øviv c_g `kwU abvZ¥K cY msL¨vi MwYwZK Mo wb‡`k Kiv nq, Avi M Øviv Zv‡`i ga¨K wb‡`k Kiv nq Zvn‡j M-m Gi gvb KZ? If m is the average (arithmetic mean) of the first 10 positive multiples of 5 and if M is the median of the first 10 positive multiples of 5 what is the value of M-m?	0
2.	X †mUwU‡Z 20wU Akb¨ ev¯Íe msL¨v i‡q‡Q| Rev‡qi Zvi Ajm mg‡q GKwU †mU Y evbv‡jv hvi cwZwU Dcv`vb nj †m‡Ui cwZwU Dcv`v‡bi wecixZ (2 Gi wecixZ nj $^1/_2$)| Gici †m X Avi Y †mU `wUi me¸‡jv msL¨v‡K ¸Y K‡i w`j| ¸Ydj KZ? X set contains 20 non-zero real numbers. Jubaer, in his idle time, created a set Y that contains the reciprocals of the numbers of set X (reciprocal of 2 is $^1/_2$). Then he multiplied all the elements of set X and Y. What is the product?	1
3.	4wU wfb msL¨v‡K Ggb KZfv‡e ‡jLv †h‡Z cv‡i †hb Zviv eo †_‡K †QvU wKsev †QvU †_‡K eo AvKv‡i wjLv _vK‡e bv? In how many ways can four different numbers be arranged so that they are not arranged in increasing or decreasing order?	4!-2=22
4.	A = {2, 3}, P(P(A)) ‡mUwU‡K ZwjKv AvKv‡i wjL‡Z PvB‡j KZevi 3 msL¨wU‡K wjL‡Z n‡e? A = {2, 3}, how many times you have to write the number 3 if you want to write the set P(P(A)) in enlisted form.	16
5.	eQ‡ii c_g w`b †_‡KB meZ cwZw`b UvKvi ev‡· 3 UvKv K‡i Rgvq| Zvi †Q‡j 'K' c_g w`b 4 UvKv, wØZxq w`b 5 UvKv, Zvi ci w`b 6 UvKv Gfv‡e (4 UvKv †_‡K ïi K‡i µwgK cY msL¨v Abmv‡i) UvKv Rgv K‡i| gv‡S GKw`b 'K' Zvi ev‡· UvKv †dj‡Z f‡j hvq| Z‡e Zvi ciw`b Zvi hZ UvKv †djvi K_v ZZ UvKvB †m †d‡j| †ek wKQ w`b ci meZi ev‡· 1095 UvKv Rgv nq, †m mgq 'K'i ev‡· 67531 UvKv Rgv nq| 'K' KZ Zwi‡L UvKv †dj‡Z f‡j wM‡qwQj? From the first day of year, Subrata saves taka 3 in a box everyday. His son KA saves taka 4 on the first day, taka 5 on the second and continues in a arithmetic progression. In between, he forgets to save money on some day, but the next day he saves the same amount he was supposed to save that day. After some days, Subrata's saving is taka 1095 and that of KA's is 67531. What was the date he forgot to save money on?	22 Dec

bs	ck	DËi
6.	 wP‡Î AD = 4, AB = 3 Ges CD = 9| Δ AEC Gi ক্ষেত্রফল KZ? In the figure above AD = 4, AB = 3 and CD = 9. What is the area of triangle Δ AEC?	4.5
7.	n hw` 1 t_‡K 8 chš Í msL¨v¸‡jvi ¸Ydj nq, Zvn‡j n Gi †gvU KZ¸‡jv †gŠwjK Drcv`K Av‡Q? If n is the product of the integers from 1 to 8, inclusive, how many prime factors greater than 1 does n have?	4
8.	 `wU mgvb eË ci¯úi‡K A I C we›`‡Z ‡Q` K‡i Ges B I D Pvc `wUi ga¨we›`| AC ‡iLvs‡ki ^`N¨ 24cm I BD=10cm n‡j e‡Ë i e¨vmva wbYq Ki| The crescent moon ABCD is formed with two arcs ABC and ADC which are parts of two equal circles (B and D are midpoints of the circles). Line segment AC=24 cm and BD=10cm. Find the radius of the circle.	13
9.	GKwU e‡Ë i cwiwai Dci n msL¨K we›` Av‡Q| we›`¸‡jv †hvM K‡i GKwU n fR ˆZwi Kiv nj| D³ n f‡Ri †gvU 20wU KY Av‡Q| n=? There are n points in the circumference of a circle. By connecting these points n-gon is made. The number of diagonals of the n-gon is 20. Find the value of n?	8
10.	2^k+1 AvKv‡ii †gŠwjK msL¨v¸‡jv‡K dvgvi †gŠwjK msL¨v ejv nq, GLv‡b k nj 2 Gi NvZ Ges GKwU cY msL¨v| 1 t_‡K 126 chš Í KZ¸‡jv dvgvi †gŠwjK msL¨v i‡q‡Q? Fermat primes are prime numbers that can be written in the form 2^k+1 where k is an integer and a power of 2. How many there are Fermat primes from 1 to 126?	4
11.	`kwU µwgK cY msL¨vi c_g cvPwUi †hvMdj 560, c‡ii cvPwUi †hvMdj KZ? In an increasing sequence of 10 consecutive imtegers the sum of the first 5 integers is 560. What is the sum of last 5 integers in the sequence?	575
12.	1 t_‡K 1000 chš Í Ggb KqwU cYmsL¨v Av‡Q hvi‡v 3 A_ev 7 Øvi‡v wefvR¨| How many numbers from 1 to 1000 are divisible by 3 or 7?	428

WvP-evsjv e¨vsK - c_g Av‡jv MwYZ Drme 2010

রাজশাহী আঞ্চলিক গণিত অলিম্পিয়াড

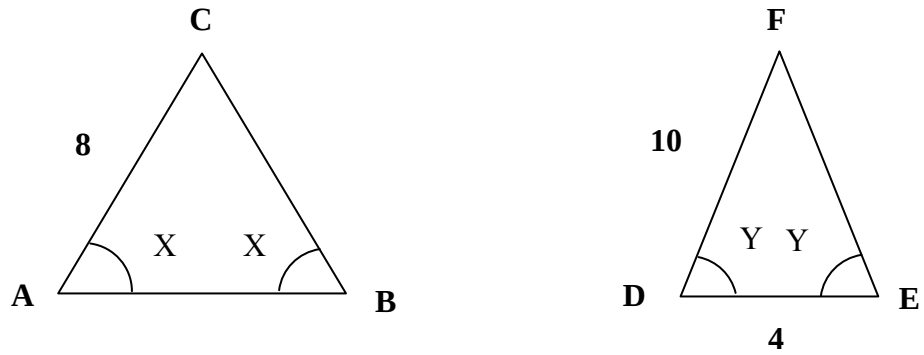
Av‡qvRK: evsjv‡`k MwYZ Awj¤úqvW KwgwU

ক্যাটাগরি: হায়ার সেকেন্ডারি (একাদশ-দ্বাদশ-এইচএসসি) **সময়: ১ ঘন্টা ১৫ মিনিট**

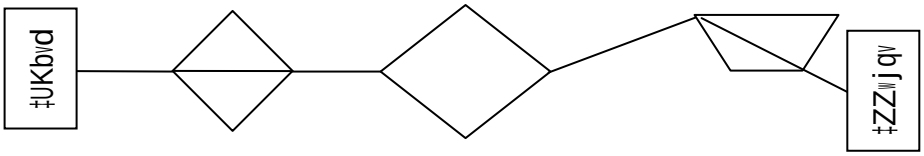
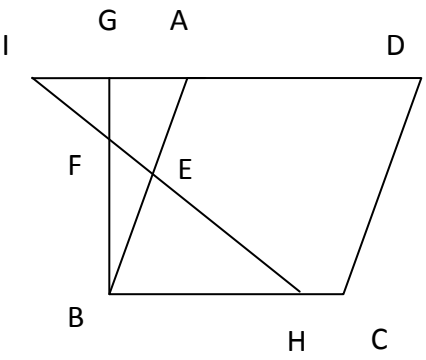
নাম(বাংলায়): **শ্রেণী(২০০৯ সাল):**

Name (In English): **Registration No:**

[এই উত্তরপত্রের নির্দিষ্ট স্থানে উত্তর লিখতে হবে। খসড়ার জন্য পৃথক কাগজ ব্যবহার করতে হবে এবং তা জমা দিতে হবে। সকল সংখ্যা ইংরেজীতে লেখা হয়েছে। সবাইকে নিজ নিজ উত্তরপত্র জমা দিতে হবে।]

bs	ck	DËi
1.	egeg ¯vDU‡`i m‡¤§j‡b wM‡q‡Q| †mLv‡b c‡Z¨K ¯vDU Ab¨ mevi mv‡_ Kig`b Kivi K_v| ‡KD †KD Avevi Kig`b K‡iwb| me‡gvU Kig`‡bi msL¨v 7 n‡j mewbg KZM‡jv Kig`b nqwb? Boomboom joined Scout Jamboree. Every scout was said to handshake with each other. Some of them did not do. The total number of handshakes was 7. Find the minimum number of handshakes which were not done?	3
2.	θ Ggb GKwU Acv‡iUi †hb a θ b=$\frac{a-b}{a+b}$ Ges a ≠ -b	hw` a ≠ -c Ges a θ c = 0 nq Zvn‡j c =? An operation θ is defined by the equation a θ b=$\frac{a-b}{a+b}$ for all numbers a and b such that a ≠ -b. If a ≠ -c and a θ c = 0 then c =?	a
3.	bv‡Ui ewo‡Z 5 †Rvov RZv i‡q‡Q| GjvKvi KL¨vZ †Pvi eë GK iv‡Z bv‡Ui RZv¸‡jv †_‡K 3wU RZv wb‡q cvjv‡jv| H 3wU RZvi g‡a¨ GKwU †Rvov cvevi m¤vebv KZ? Naat has 5 pairs of shoes in his house. One night, a locally well known thief called Boltu came to Naat's house and stole 3 shoes randomly. What is the probability that there was a pair of shoes in those 3 shoes?	$^1/_3$ = 0.33
4.	1 †_‡K 1000 chš Í Ggb KqwU cYmsL¨v Av‡Q hv 3 wKsev 6 Gi ¸wYZK wKš 5 Gi ¸wYZK bq? From 1 to 1000, how many integers are multiples of 3 or 6 but not of 5?	467
5.	 ∠x = 60^0 n‡j Δ DEF Ges Δ ABC Gi cwimxgvi cv_K¨ wbYq Ki| In this figure ∠ x = 60^0. Find the difference between the perimeter of Δ ABC and Δ DEF	0
6.	$2^{1024} + 5^{1024}$ †K 3 Øviv fvM Ki‡j KZ Aewkó _vK‡e? What is the remainder when $2^{1024} + 5^{1024}$ is divided by 3?	2

WvP-evsjv e¨vsK - c_g Av‡jv MÖYZ Drme 2010
রাজশাহী আঞ্চলিক গণিত অলিম্পিয়াড
Av‡qvRK: evsjv‡`k MÖYZ Awj¤úqvW KwgwU

bs	ck	DËi
7.	`BwU mgvšÍivj mij‡iLvi GKwU‡Z 5wU I AciwU‡Z 4wU we›` Av‡Q| we›`¸‡jv †hvM K‡i †gvU 20wU mij †iLvsk ˆZwi Kiv nj| mij‡iLvsk¸‡jv wb‡R‡`i g‡a¨ †gvU KZ¸‡jv †Q`we›` ˆZwi Ki‡e? hw` mgvšÍivj mij†iLv `wU‡Z m I n msL¨K we›` _v‡K Zvn‡j KZwU †Q`we›` ˆZwi n‡e? There are 5 points and 4 points on two parallel lines respectively. Connecting all the points 20 lines have been found. How many intersecting points have been created by these 20 lines? If there are m & n points on the parallel lines then what will be the number of intersecting points?	60 ${}^{m}C_2 \times {}^{n}C_2$
8.	N Ges P, 1 Gi †P‡q eo †Kvb cYmsL¨v| P, N+4 Ges N+12 Gi Drcv`K| P Gi gvb¸‡jv wbYq Ki? If N and P are integers greater than 1 and if P is a factor of both N+4 and N+12, what are the values of P?	2, 4, 8
9.	$f(x) = \frac{x^2}{\sqrt{x}}$ n‡j f Gi †iÄ KZ ‡hLv‡bv $x \in R$? What is the range of f where $f(x) = \frac{x^2}{x}$ and $x \in R$	$R_+ - \{0\}$
10.	 mij‡iLv Øviv GB Qwe‡Z †UKbvd †_‡K †ZZwjqv hvIqvi mKj c_ †`Lv‡bv n‡q‡Q| GKwU B`i †UKbvd †_‡K †ZZwjqv hv‡e, †mLv‡b wM‡q †m GKwU iwUi UKiv ci¯‹vi wn‡m‡e cv‡e| GKB RvqMvq `Bevi bv G‡m †m †gvU KZfv‡e †UKbvd †_‡K †ZZwjqv †h‡Z cvi‡e? The diagram above shows the various paths along which a mouse can travel from point Teknaf, where it is released, to point Tetulia, where it is rewarded with a food pellet. How many different paths from Teknaf to Tetulia can the mouse take if it goes directly from Teknaf to Tetulia without retracting any point along a path?	18
11.	GKwU 4 GKK বর্গক্ষেত্রের g‡a¨ me‡P‡q eo †h mgevû wÎfR AvKv hvq Zvi ক্ষেত্রফল KZ? What is the area of the largest equilateral triangle that can be inscribed in a 4 unit square?	
12.	 ABCD GKwU i¤m| 2CH=AE=BE=4 Ges BG⊥AD| ∠ABC=60^0 n‡j FG=? In ABCD rhombus 2CH=AE=BE=4 and BG⊥AD. If ∠ABC=60^0 then find the value of FG.	$\sqrt{3}$