



ক্যাটাগরি: প্রাইমারি (৩য়-৫ম শ্রেণী)

সময়: ১ ঘন্টা ১৫ মিনিট

নাম(বাংলায়):

শ্ৰেণী(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.	1 †_‡K 112 Gi g‡a" ‡gvU KZwU msL"v Av‡Q hviv 12 Gi ¸wYZK wKš'6 Gi ¸wYZK bq?	0
	What is the total number of the numbers from 1 to 112 which are divisible by	
	12 but not by 6?	
2.	6-Gi Drcv`K 4wU -1, 2, 3, 6 Ges tgśwj K Drcv`K ïaygvÎ `BwU - 2, 3   105 Gi me\$gvU	8
	KZ¸‡j v Drcv` K Av‡Q?	
	The number 6 has four factors 1, 2, 3, 6 and 2, 3 as only the prime factors.	
2	How many factors 105 has?	20 10
3.	CuPvU wi Kkv cliZ         N>Uvq         h_vµtg $\frac{10}{20}$ , $\frac{20}{40}$ , $\frac{40}{50}$ , $\frac{50}{60}$ gvBj         Ptj   $\frac{1}{20}$ ZMvgx         Ges	$\frac{20}{60} = \frac{10}{30} = 0.33$
	axiMvgxwiKkv`yJJi ‡e‡Mi cv_R°KZ?	
	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. What is difference between the speed of fastest and slowest rickshaw?	
4.	GKwU evt· 4 t_‡K 215 ch\$ĺ 11 Gi ¸wYZK (11 Øviv wefvR") msL"v¸‡jv ivLv nj   evt· tgvU KqwU msL"v Av‡Q?	19
	There are all the multiples of 11 from 4 to 215 in a box. How many numbers are there in the box?	
5.	1, 2, 3, 4, 5, GB cuPwU AsK ‡_‡K cliZevi `BwU K‡i AsK wb‡q †gvU KqwU abvZkK fMwsk ^Zwi Kiv hv‡e hv‡`i gvb 1 Gi †P‡q Kg?	10
	How many positive proper fractions can be made using any two of the five	
	digits 1, 2, 3, 4, 5 at a time?	
6.	‡KvP Rb eKvb‡bi ÔPvi AwabvqK ZËĎ- Abynv‡i KjKvZv bvBU ivBWvm®`‡ji 25% wm×všĺ	25
	tbte wµm tMBj, 30% wm×všĺ tbte g¨vKKvjvg, 25% wm×všĺ tbte tmŠif Mv½jx  Aci	23
	AwabvqK e*W nR hw` †Kvb GK g¨v‡P 5wU wm×všĺ †bq Z‡e IB g¨v‡P †gvU KqwU wm×všĺ	
	tb I qv n‡qııQj ?	
	According to the '4 captains theorem' by the Coach John Buchanan of	
	Kolkata Night Riders 25% decision will be made by Chris Gayle, 30% will	
	be made by Mcculam and 25% will be made by Sourav Ganguly. If the other	
	captain Brad Hodge took 5 decisions in a match, what was the total number	
	of decisions that were made in that match?	
7.	GKwU mPj ~rfweK Nwo‡Z 11 N>Uvq (`ycyi 1Uv†_‡K ivZ 12Uv) KZevi wgwb‡Ui KwUv N>Uvi KwUvi wVK Dc‡i Ae~vb K‡i?	11
	INDIT HALL DOT UN INTE	





bs	CK®	DËi
	How many times in 11 hours (from 1pm to 12pm) the dial of minute stands just above the dial of hour in the watch?	
8.	16 WV must evsj vt tki weRq w em   16/12/1971 Zwi tL evsj vt k saxb nq   16,12 Ges 2010 Gi sydtj i tgv y K Drcv K tj v wb Y ki   16th December is the Victory Day of Bangladesh. Bangladesh achieved its independence in 16/12/1971. Find out all the prime factors of the product of 16, 12 and 2010.	2, 3, 5, 67
9.	wgZıcůZw`b UvKvi evt. AvtMi w`tbi wû Y cwi gvb UvKv Rgv Kti   ců gw`b wgZı 1 UvKv w`tq i iyKtiwûj   lôw`b tktl wgZi evt. tgvU KZ UvKv Rgv nj? wgZıcůZw`b Mto KZ UvKv Kti Rgvj?  Everyday Mitu saves money in her money bank. She saves everyday twice the amount than she saved in the previous day. Mitu started with taka 1. What will be the total amount of money in her bank after six days? What is the average amount of money that she saved per day?	63; <sup>63</sup> / <sub>6</sub> =10.5
10	Z $Z$ $Z$ $Z$ $Z$ $Z$ $Z$ $Z$ $Z$ $Z$	90 <sup>0</sup>
11.	GKNU Nţi 4 Rb ANZN_ eţm AvţQ   Gţ` i cĎZ ţK nq imgvj vB cŷ` Kţi bv nq ivRţfvM cŷ` Kţi   Zţe Aš Z GKRb ivRţfvM cŷ` Kţi   hw` thţKvb `ßRţbi Aš Z GKRb imgvj vB cŷ` Kţi Zvnţj ANZN_ţ` i tgvU KZRb imgvj vB cŷ` Kţi?  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 ROSMALAI?	3
12.	hw` $a$ Ges $b$ DfqB †Rvo msL'v nq wb‡Pi †KvbwU Aek'B we‡Rvo n‡e? If $a$ and $b$ are both even 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) $a-b+1$ v) $(a+1)$ x $(b+1)$ - 1	<b>iv)</b> a - b+1





ক্যাটাগরি: জুনিয়র (৬৯-৮ম শ্রেণী)

সময়: ১ ঘন্টা ১৫ মিনিট

নাম(বাংলায়):

শ্ৰেণী(২০০৯ সাল):

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[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	CÏKŒ	DËi
1.	25 ng. I 45 ng. ^`‡Nª `nJU `Ê n‡Z m‡e®P KZ mgvb ^`‡Nª `Ê Dfq `Ê †_‡KB †K‡U †blqv	24/25
	m¤€?	
	What is the maximum equal length of a stick that can be cut both from 25m and	
2	45m stick?	2076
2.	Pvi At¼i th KqwU msL"v Av‡Q hv‡`i t_‡K 12 we‡qvM Ki‡j Zv 12 w`‡q, 17 we‡qvM Ki‡j Zv 17	3876,
	w`tq Ges 19 wetqvM Kitj Zv 19 w`tq fvM hvq tm msL"v_wj wbY@ Ki	7752
	Find all the 4-digit numbers which are divisible by 12, 17 and 19 if 12,17 and	
3.	19 iare subtracted from the numbers respectively.  egegg ¬«DUt`i mt=sj tb wMtqtQ  tmLvtb colZ"K ¬«DU Ab"vb"t`i mvt_ Kig`s Kivi K_v  tKD	4
ა.	egeg woot i nin-sgito win-q-ez   ninev-to conzer wood Abrust i nin-ez kig to kin ke_v  +kbb     tKD Avevi Kig`16 Ktindo   mengguU Kig`16bi mslov 9 ntj mengogokZMtjv Kig`16 nqndo?	1
	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 9.	
	Find the minimum number of handshakes which were not done?	
4.	1, 2, 3, 4, 5, 6, 7 GB mvZılU AsK ‡_tK cüZevi `BılU Kţi AsK ılbţq tqvU KqılU abvZlk fMusk	21
	^Zwi Kiv hvte hvt` i gvb 1 Gi tPtq Kg?	
	How many positive fractions can be made using any two of 1, 2, 3, 4, 5, 6, 7	
	each time whose value would be less than 1?	
5.	Ggb †gŠnj K msL"v N nbY9 Ki †hb 16N+5 GKnU †gŠnj K msL"v nq	2
	Find the prime number N for which 16N+5 is prime?	
6.	Rb eKvb‡bi ÎPvi AwabvqK ZËĴ- Abynv‡i Kj KvZv bvBU ivBWvm©‡ji 25% wm×všĺ †b‡e wµm	30
	tMBj, 30% wm×vší tbte g¨vKKvjvg, 25% wm×vší tbte tmšif Mv½jx  Aci AwabvqK e³vW	
	nR hw`tKvb GK g¨v‡P 6νU wm×všĺtbq Zţe IB g¨v‡P tgvU wm×všĺtblqv n‡qνΩj KqνU?	
	According to the '4 captains theorem' by the Coach John Buchanan of Kolkata	
	Night Riders 25% decision will be made by Chris Gayle, 30% will be made	
	Mcculam, 25% will be made by Sourav Ganguly. If the other captain Brad	
	Hodge takes 6 decisions in a match then what is the total number of decisions	
7.	that were made in that match?  1 †_‡K 150 Gi g‡a" ‡gvU KZwU msL"v Av‡Q hviv 15 Gi ¸wYZK wKšĺ 5 Gi ¸wYZK bq?	0
'.	What is the total number of the numbers from 1 to 150 which are divisible by	0
	15 but not by 5?	
L	15 out not by 5.	





bs	CÏKŒ	DËi
8.	$Z$ $C$ $Y$ $A$ $P \hat{l} \text{ with } Z \text{ AB Ges CD } \text{ ci}^-\text{ ti} \text{ mgvš i vj} \mid X = Y = 50^0 \text{ ntj}  \angle Z \text{ Gi cwi gvc KZ?}$ In the figure AB and CD are parallel. $\angle X = \angle Y = 50^0 \text{ then find the value of the}  \angle Z.$	130 <sup>°</sup>
9.	CVţki ঋPÎঋUţZ mgvb eNû wewkó GKঋU eM®Aci GKঋU etM® Dci AvswkKfvţe Ae¯vb KiţQ  P I Q etM® evûi ga¨we>`y  evûi ‰N¨®4 GKK  Qvqv Av″Qww`Z cţiv Gj vKঋUi ক্ষেত্ৰিল ঋbYਊ Ki  Two square of length 4 are put in a position as the figure. P and Q are the mid point. Find the total shaded area?	28
10.	hw` $a$ Ges $b$ DfqB †Rvo msL'v nq wb‡Pi †KvbwU Aek'B we‡Rvo n‡e? If $a$ and $b$ are both even numbers, which of the following must be an odd integer? $i) (a + b)^2$ $ii) a^2 + b^2$ $iii) (a + 1)^2 + (b + 1)^2$ $iv) a - b + 1$ $v) (a + 1) \times (b + 1) - 1$	<b>iv)</b> a - b+1
11.	Avgvi KvtQ wZbwU nvZNwo AvtQ   c0gwU 10 wgwbU axti Ptj , w0ZxqwU bó Ges ZZxqwU c0Z wgwbtU 1 tmtKû Kti wcwQtq cto   Avgvi gv_vq fvebv Avmj th, Gi gta" t_tK Ggb GKwU Nwo cti evBti tei ne thUv mvi wi tb metPtq tewk mgq mwVK mgq t`Lvte   Zte Avgvi KvtQ Nwo wVK Kivi tKvb Dcvq AvcvZZ tbB   Zwg AvgvtK tKvb NwowU citZ civgk te?  I have three watches. First watch runs 10 minutes slow, 2nd one is damaged and remaining one is lagging behind by 1 sec in every minute. I am wondering to go out outside with the one which will show me correct time in most of the times. Which one should I take?	wØZxqwU (bówU)
12.	3 Rb eÜzcůZw`b GKnU ti ÷ţiţ›Ui tMvj tUneţj i PZn`\\$K 3nU GKB i Kg tPqvţi etm AvÇv t`b   Zvi v cůZn`b wfbœnfbœneb vtm emtZ c0>` Kţib   Gfvţe Pj ţZ _vKţj me\\$gvU KZn`b Zvi v bZb bZb neb vtm emtZ cvi ţeb? 3 friends chat everyday in a round table in restaurant sitting on same 3 chairs. They like to sit in a new permutation everyday. How many days can they sit in new arrangement?	2! = 2





ক্যাটাগরি: সেকেন্ডারি(৯ম-১০ম শ্রেণী)

সময়: ১ ঘন্টা ১৫ মিনিট

নাম(বাংলায়)

শ্ৰেণী(২০০৯ সাল):

#### Name (In English):

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্রিই 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	CÏK®	DËi
1.	QviţcvKv R‡b¥i ciw`b †_‡KB cNiZw`b GKwU Kţi ev"Pv †`lqv ïiyKţi  QviţcvKv MţelK wg:	2 <sup>6</sup>
	`x‡ck 17 wW‡m¤î GKwU ev‡· m`" Rb¥†blqv GKwU Qvi‡cvKv †i‡L w`‡j b  23 wW‡m¤ei H ev‡·	= 64
	KqwU Qvi‡cvKv_vKţe?	
	A bug starts breeding on the very next day of its birth. In 17th December bug	
	researcher Mr. Dipesh kept a new born bug in a box. What will be the number	
2.	of bugs in that box after 23rd December? iwebûW fvj Zxi QuptZ cvitj   AsK KitZ cvti bv   3m e wwvtap GKwU twy vKvi KvtWp teww	1
2.		$\frac{1}{3}$
	iwebû‡Wi mvg‡b ivLv nj Ges 1m. I 2m. e¨vmv‡a® mg‡Kwo`nK `ynU eË GotK tewWnRu‡K tgvU   wZbfv‡M fvM Kiv nj   iwebûW tewW©লক্ষয় K‡i Zxi Onotj Zv 2q fv‡M jvMvi m¤wle¨Zv tei K‡i	_
	inebûW‡K RvbvI	33.33%
	Robinhood is undoubtedly a very good archer but his mathematical ability tends	0.33
	to zero. A circular board of 3m in radius is kept in front of Robinhood. Then	
	two concentric circles 1m and 2m in radius are drawn on the board. Now if	
	Robinhood throws an arrow what is the probability that the arrow will hit the	
	second portion of the board?	
3.	Avgvi Kv‡Q wZbwU nvZNwo Av‡Q  c <u>0</u> gwU 10 wgwbU ax‡i P‡j, w0ZxqwU bó Ges ZZxqwU c <b>0</b> Z wgwb‡U	wØZxqwU
	1 tm‡KÛ Kti wcwQtq cto  Avgvi gv_vq fvebv Avmj th, Gi gta¨t_‡K Ggb GKwU Nwo cti	(bówU)
	evB‡i tei ne thUv mviwi`tb metP‡q tewk mgq mwVK mgq t`Lv‡e  Z‡e Avgvi Kv‡Q Nwo wVK Kivi	
	tKvb Dcvq AvcvZZ tbB  Zng Avgv‡K tKvb NnonU ci‡Z civgk®; te?	
	I have three watches. First watch runs 10 minutes slow, 2nd one is damaged	
	and remaining one is lagging behind by 1 sec in every minute. I am wondering to go out outside with the one which will show me correct time in most of the	
	times. Which one should I take?	
4.	1 †_tK 100 Gi gta" tgvU KZwU msL"v AvtQ hviv 10 Gi _wYZK wKšĺ 5 Gi _wYZK bq?	0
	What is the total number of the numbers which are divisible by 10 but not by 5?	<b>5</b>
5.	GKUv 3 wg ^ ‡N® eM®KwZi cKtii Pvi †KvYvq PviwU MvQ Av‡Q Ges cKti gvQ PvI Kiv nq   MvQ	3√2
	bv†K‡UcKtii AvKvi ewotq me@naK†h eM®KwZicKii ^Zwi Kiv m¤€Zvi‰N©KZ?	=5.20
	There are 4 trees on the 4 corners of a square pond having side length of 3m.	3.23
	Without cutting the trees and without changing the shape of the pond what	
	could be the maximum side length of the pond?	





bs	CÏKŒ	DËi
6.	CVţki wPlwUtZ mgvb eŵû wewkó GKwU eM®Aci GKwU etM®Dci Ae¯vb KiţQ PlQetM® evûi gaïwe>) y evûi % N°®6 GKK Qvqv Av″Qwv Z cţiv GjvKwUi ক্ষেত্ৰফল wbY® Ki  Two squares of length 6 are put in a position as the figure. P and Q are the mid point. Find the total shaded area.	63
7.	`yU AsK cvkvcwk emvtj MwZ msL`wUtK [x][y] Øviv wbt` $\Re$ Kiv nq  [x][y] I [y][x] DfqB tg\$wj K msL`v Ges [x][y]-[y][x]=[(x-y)/2][2(x+y)] ntj x+y Gi gvb wbY $\Re$ Ki  x and y are two digits and [x][y] represents the number $10x+y$ . If [x][y] and [y][x] are both primes and [x][y]-[y][x]=[(x-y)/2][2(x+y)] find x+y.	4
8.	A  *JU mg/b eË ci uitK A I C we to Kti Ges B I D  P/c Juli ga we f AC ti Lustki `No 24cm I BD=10cm  ntj etËi e mnva by 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.	egeţgi KvtQ 2nU Avg, 1nU Kj v, 1nU nj Pr AvtQ   tm meţgvU KZ Dcvtq dj KvDtK t`l qvi Rb'' nm×všĺ nbtZ cvti?  Boomboom has 2 mangos,1 bananas and 1 litchi. Find the no. of all possible ways by which he can give anyone from these fruits?	3 x 2 x 2 = 12/11
10.	$f(x) = \frac{1}{X-1}$ Gi †i Ä KZ? Find the range of $f(x) = \frac{1}{X-1}$	R-{0}
11.	AfxK, wgj b, mpZ I †nj vj AÜKvi ivtZ GKwU †mZıcvi nte  †mZıcvi ntZ Zvt`i h_vµtg 10, 11, 12 I 13 wgwbU mgq j vtM  Zvt`i nvtZ †h UPPvBUwU AvtQ †mwUi Avtj vtZ eotRvo `ßRb GKmvt_ †mZıcvi ntZ cvti   Pvi Rtbi †mZwU cvi ntZ merbgæKZ mgq j wMte? Avik, Milon, Subrata and Helal will cross a bridge in the night. They need 10, 11, 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 4 persons to cross the bridge.	56
12.	12ab GKNU Pvi A¼ wewkó msL"v †hLv‡b b Ges a h_vµ‡g GKK I `kK ¯vbxq A¼ wb‡`R K‡i   12ab msL"wU 2, 5 G Ges 7 Øvi v wefvR" n‡j a Ges b Gi gvb wbYq Ki   In the four digit number 12ab, a and b are digits. Find a and b such that the number 12ab is divisible by 2, 5 and 7.	6, 0





ক্যাটাগরি: হায়ার সেকেন্ডারি (একাদশ-দ্বাদশ-এইচএসসি) সময়: ১ ঘন্টা ১৫ মিনিট নাম(বাংলায়): শ্রেণী(২০০৯ সাল):

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bs	CIK®	DËi
1.	GKwU Nţi 5 Rb AwZw_ eţm AvţQ  Gţ`i c#Z"ţK nq imgvjvB cQ>` Kţi bv nq ivRţfwM cQ>` Kţi  Zţe AšĺZ GKRb ivRţfvM cQ>` Kţi  hw` thţKvb `ßRţbi AšĺZ GKRb imgvjvB cQ>` Kţi Zvnţj AwZw_ţ`i tgvU KZRb ivRţfvM cQ>` Kţi?	1
	5 visitors are sitting in a room. Each one likes <i>ROSMALAI</i> or <i>RAJVOG</i> . At least one likes <i>RAJVOG</i> . Given that between any two students at least one likes <i>ROSMALAI</i> . How many visitors like <i>RAJVOG</i> ?	
2.	1 † #K 100 ch f Ggb KqwU cYmsL"v Av t hv 3 wKsev 4 Gi wYZK wK f 5 Gi wYZK bq? From 1 to 100, how many integers are multiples of 3 or 4 but not of 5?	40
3.	4 Rb eÜzcüZw`b GKwU ti ÷ţiţUi tMvj tUweţj i PZw`\K 4wU GKB i Kg tPqvţi etm AvÇv t`b   Zviv cüZw`b wfbœwfbœweb`vţm emţZ cQ›` Kţib   Gfvţe Pj ţZ _vKţj me\gvU KZw`b Zviv bZb bZb web`vţm emţZ cviţeb? 4 friends chat everyday in a round table in restaurant sitting on same 4 chairs. They like to sit in a new permutation everyday. How many days can they sit in new arrangement?	3! = 6
4.	QviţcvKv Rţb\u00e4 ciw`b t_tKB c\u00e4Zw`b GK\u00e4U Kţi ev"Pv t`lqv iiyKţi   QviţcvKv MţelK wg:  xtck 2 \u00fcWtm\u00e4î GK\u00e4U evt\u00e4 m` Rb\u00e4 tblqv GK\u00e4U QviţcvKv tiţLw`tj b   8 \u00e4Wtm\u00e4ei tktl H  evt\u00e4 Kq\u00e4U QviţcvKv_vKţe?  A bug starts breeding on the very next day of its birth. In 2nd December bug researcher Mr. Dipesh kept a new born bug in a box. What will be the number of bugs in that box after 8th December?	2 <sup>6</sup> = 64
5.	A  S  S  S  S  S  S  S  S  S  S  S  S  S	24
	$\mathbf{x} = 60^0$ n‡j $\Delta$ <i>DEF</i> Gi cwi mxgv wbY $\mathbf{\hat{q}}$ Ki    In this figure $\mathbf{x} = 60^0$ . Find the perimeter of $\Delta$ <i>DEF</i> .	
	in this figure A – 00. I find the perimeter of \(\mathbb{L}\)DLr.	





bs	CKœ	DËi
6.	GKwU e‡Ëi cwiwai Dci n msL"K we>`yAv‡Q  we>`y¸‡jv thvM K‡i GKwU n fR ^Zwi Kiv nj   D³	6
	n f‡Ri †gvU 9vU 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 9. Find the value of n?	3 - 4 -
7.	BNU mgvšíivj mij‡iLvi GKwU‡Z 3wU I AciwU‡Z 4wU we>`y, Av‡Q  we>`y, ‡j v †hvM K‡i †gvU	${}^{3}C_{2}X^{4}C_{2}$
	12wU mij †iLvsk ^Zwi Kiv nj   mij‡iLvsk ¸‡j v wb‡R‡`i g‡a" †gvU KZ ¸‡j v †0`we>`y ^Zwi	=18
	Kite? hw` mgvšĺivj mij†iLv`yUtZ m l n msL"K we>`y_vtK Zvntj KZvU†Q`we>`y^Zwi nte?	$^{m}C_{2}x^{n}C_{2}$
	There are 3 points and 4 points on two parallel lines respectively. Connecting all the points 12 lines have been found. How many intersecting points have	
	been created by these 12 lines? If there are m & n points on the parallel lines	
	then what will be the number of intersecting points?	
8.	N Ges P, 1 Gi †Ptq eo †Kvb cYmsL"v  P, N+3 Ges N+10 Gi Drcv`K   P Gi gvb KZ?	7
	If N and P are integers greater than 1 and if P is a factor of both N+3 and N+10,	,
	what is the value of P?	
10.	tmvnvM mvtne Zvi tQtj tgtqt`i bvg ivLvi e"vcvti GKUztmŠwLb  wZwb Zvi tQtj tgtqt`i bvg Zvi	3C v 4!
	wb‡Ri bvţgi eY®ţjvi gva¨ţgB ivLţeb (Ab¨ †Kvb eY®e¨envi Kiţeb bv)  Zvi mšĺvbţ`i bvg	${}^{3}C_{1} \times \frac{4!}{2!}$
	Pvi eY®newkó   cůZwU bvtg Zvi wbtRi bvtgi wZbwU etY® cůZ"KwU AšÍZ GKevi _vKteB   m¤te"	= 36
	mKj Dcv‡q wZwb Zvi mšĺvbţ`i bvg †i‡LwQţj b  Zvi KqwU mšĺvb wQj?	
	Mr. #www is a very interesting person. He named each of his children with 4	
	letters. All of these names consist of all 3 letters of his own name (no other letter has been used). He had to use all the possible combinations. What is the	
	number of his children?	
11.		5
	$\left  \frac{x+2}{7}, 2 \text{ Gi } \right  \text{Ptq eo GKNU cY} \left  x \right  \left  x \right  \left  x \right  \text{K 7 } \text{Øviv fvM Kitj KZ Aewkó \_vKte?} $	
	$\mathbf{x} \cdot \mathbf{x} + 2$ .	
	If $\frac{x+2}{7}$ is an integer greater than 2, find the remainder when x is divided by 7.	
12.	`yU mgvb eË ci ¯úi‡K A I C we>`ţZ ţQ` Kţi Ges B I	13
	A D Pvc_`yUi ga"we>`y  AC ‡iLvs‡ki ^`N© 24 I BD =10	
	n‡j e‡Ëi e¨vmva¶bYQ Ki	
	The crescent moon ABCD is formed with two	
	arcs ABC and ADC which are parts of two equal circles (B and D are the midpoints of the arcs)	
	B circles (B and D are the midpoints of the arcs). Line segment $AC = 24$ cm and $BD = 10$ cm. Find	
	the radius of the circle.	
	С	
	I .	