

Практическая работа №2. Кодировки

Задание 1. Кодирование US-ASCII

Задание 1а. Непечатаемые символы

С помощью Powershell (Windows) или Терминала (Linux, macOS) выведите символ с номерами 7, 9 и 10 (обозначаемые также как \a, \t, \n).

Для этого напишите команды в Powershell:

```
"`a `n `t"
"a = $( [int]"`a"[0] ) - символ: `a и дальше текст"
"n = $( [int]"`n"[0] ) - символ: `n и дальше текст"
"t = $( [int]"`t"[0] ) - символ `t и дальше текст"
```

Или в терминале Linux/macOS:

```
printf '\\a = %s\n' "$(printf '\a' | od -An -t d1)"
printf '\\n = %s\n' "$(printf '\n' | od -An -t d1)"
printf '\\t = %s\n' "$(printf '\t' | od -An -t d1)"
```

Что получилось? Что делают символы с кодами 7, 9, и 10? А какой код у символа пробел?

Задание 1б. Печатаемые символы ASCII

Приведите несколько ($N \geq 3$) сравнительных пар текстов (текстовых файлов), которые похожи по смыслу, но одни будут открываться в любых текстовых редакторах, а другие будут требовать дополнительной настройки или не работать?

(Пример: старая книжка по программированию, выложенная в виде .txt, на английском и на русском языках)

Задание 1в. Старый почтовый сервер

Электронное письмо, с точки зрения внутреннего устройства, первоначально представляло собой текстовый файл с заголовком и телом, разделенными пустой строкой:

```
From: (not)MIREA <i_am_pedro_from_sao_paolo@mail.br>
To: <ivanov.i.i@edu.mirea.ru>
Subject: URGENT NEWS CLICK ME IMMEDIATELY
Content-Type:
Content-Transfer-Encoding:
```

Hello pls visit my amazing website example.org. Because I love your credit card.

Совет

Кстати говоря, в примере — вымышленное фишинговое письмо, такие лучше даже не открывать или открывать, предварительно обязательно поместив в папку Спам и отключив подгрузку картинок и прочих внешних ресурсов.

И да, интересный факт: отображаемое имя и правда технически может и не соответствовать настоящему адресу, а вот сам обратный email-адрес, скорее всего, и правда существует, но проблема в том, что в общем случае он никак не идентифицирует владельца и может быть «фейковым».

Представьте, что в организации используется устаревший почтовый сервер, который исторически работал только с письмами в формате US-ASCII. Ранее он без проблем пересылал все письма дальше по цепочке SMTP-серверов.

Но в какой-то момент администратор подключил спам-фильтр никак не модернизировав сервер и софт. После этого пользователи заметили, что некоторые легальные письма (например, письма с кириллицей в тексте, письма с вложениями или форматированным текстом) перестали доходить до адресатов и «пропадают».

Вопрос: почему такие письма могут исчезать, даже если они не являются спамом?

Задание 2. Кодирование Windows-1251

Закодируйте свое ФИО на однобайтной кириллической кодировке Windows-1251 в формате
Фамилия, Имя, Отчество.

Иными словами: Фамилия,Запятая,Пробел,Имя,Запятая,Пробел,Отчество,Точка

Задание 3. Внутренняя структура Юникода

Скопируйте строчку и вставьте в текстовый редактор. (Подойдет VS Code. Предварительно установите расширение Hex Editor)

QY 🏠 😊

Переключитесь в режим шестнадцатеричного редактора. Для этого ПКМ по названию файла на вкладке VS Code, затем выберите «Reopen Editor With... HEX editor»

Понаблюдайте, сколько байтов занимает каждый символ, сопоставляя их между текстовым и двоичным представлением. Опишите наблюдения в отчете.

Задание 4. Как вставить в отчет по практике голосовое сообщение?

Существует формат base64, специально предназначенный для отображения произвольных бинарных данных в виде ASCII-последовательности.

Например, в блоке текста ниже сохранена аудиозапись формата .OGG. Голос на записи произносит слово «Информатика».

Вопросы задания 4

1. (вне отчета) воспользуйтесь base64-конвертерами, скопируйте текст из примера ниже и убедитесь в том что как это работает.
2. создайте файл любого типа (за исключением исполняемых и узкоспециальных; при использовании нетипичных форматов рекомендуется уточнить у преподавателя допустимость его использования и обговорите условия сдачи — помните, что преподаватель не обязан для проверки работ запускать код из неизвестных источников, устанавливать дополнительные программы, включая игры, и так далее) и запишите туда свое имя согласно **структуре** данного формата файла: в звуковом файле должны быть последовательности интерпретируемые как звук, в растровом изображении байты пикселей картинки, архив содержащий файл с Вашим именем, и так далее.
3. рекомендация: при исполнении п.2 по возможности избегайте избыточных размеров.

- ## Неустранимо большие

TdnUwACAAAAAAd0Mw10AAAAPAwlcoBE9WdXNIZWfKaQE4AYC7AAAAABPZ2dTAAAAA
AAAAAPQzDU4BAAAOsTHAwP//5PcHVzVGFncxUAABSaWJvcHVzIHWua25vd24tZm14ZWQAAAAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAA
AAE9nZ1MAAMADAAAAA
9DMNTgIAAACoJjMRAQP4//5PZ2dTAAACBwAAAAAAPQzDU4DAAAA29cmnQED+P/+TdnUwAAQAsA
AAAAAD0Mw10BAAAiNENScBa/j//k9nZ1MAAAAPAAAAAA9DMNTgUAAADWh4orAQp4//5PZ2dT
AADAEgAAAAAAPQzDU4GAAADXe5aQL/gPh/aGeIPxChRlsL1CGG7ucy0jmAuMsstrvpOgl9/0mX
al0zR7TB6wofQ7ZpdtSSL6n7qZcxrUa/ueVDv/1QkSGVGair6jYEQRrfqAKL90NJx4oxScyc8TE
ccAjwKFNINAgO35xEtAKZmjZPDLoPqRDbGv/8xTNwVcz3qs+5Hqakcbk5B8CwrJXPft32/m7ifvi
v2QxzT1VDBCzX80CiGobeDwEjXT3U1I8wGBzvTu3C8LBZJCrlC/gAAAAAAAAAAAAALvy+AAAAA
AAAAATnu7hHzFv8YJB4DCPPstXn1fnDwxHTQV02biwAAAAAAAAAABB9fs3SRnJVYJo17aBMQs
auZ5fQkiJSCmzPVLC0n+aFYdhjdAIpzG026XgSm03FoEMx2dfsVpzYHTMNi8tYXRCAkl+Ge+CFVJ
Fg7+Nw1fpd77ASco6MH/1FeIXoS7FJZSnDX700/MobWfGReoGSF9IBEqAbVo5uGuscWy84kWdq
FO+KFjYRLetPTdnUwAAGBYAAAAAAD0Mw10BwAAAMGw/kwC/4D4UAT6nqh5I4ASNsfMahyLARZ
taoh2ULF2PaCADKfqbtCgQivulRHENMP9YgX7Fj6mZQD1/Ta8HH9xyLe/8EIIXqFd0zGy92eAyj5
1miDQjPFkGx5mkZBqnQGkyPEC/L7DkGIHRt0/C8gfIoHxanHN4TwIS9ZjMiF9lbkjzwza6jZiBbn
umDL8LwcceR5BncjidDm3Lm+816BQQEAExcDKbEav5N2RPLXmAoyJJPIxCs0dQRi5SJrqQAXqCDJ7
VzPWxBQBkvQn/VIU1vd++UDHBMVZHlaWiGW4jFq004F7yqZQpWuGjOsNkeU57yaMfHlgzArsW8Ks
pKhlgPqpVxgrn5vRiF/5To9zkATPLZjRv8Qpa0HgXaeg59ay+fcs94F60vTk7c12T2fjwo0DIiNO
KwjAMner9Hg+ojxFuQFuFTqys8jJ/bexzwqTJ8EiuE6zbIbN2L2/ybHDdfR2WX9C5rXn0IEBPTRv
M/3xMQ8bjxYIam7qqGvg0ujDeK6l5E9nZ1MAAEaAAAAAA9DMNTggAAADnNfolAv+A+FCxmAdr
YhnouVim0DZl6hCSCB4beo3k5xu1CN0JSZRNR4NmAJD+duLnGdX1Heb5Nr6XVVRjg4uEGEaAFNH1
Zd4lMkMF6BblsDQim/ToxJ+Cm/pmsCngqKVL19kYLjBlm/KEYzY0qg0R9PztAunr9ten9QdvUcXm
k7pAiLehuVUJX1BpDstk5i2lqlER0DwfZr/ZmdEOFLSstLNVDovL+OK+mA/m4wNXdRSoltVYXIwQ
M/JtAk5d0TU2nvBn6kfZjEuM7HfjJ/lvgL8Vfp8HYFEHC/ns1UJ5C9XgbwR7KzMsvXUYXGkWK+6
98RRx2+m+01jCEHGsuG964CjUiyzwMKGwDNd+rXLZ2uyJnYTZqi5ZPDgeuh5gjwe7E5UABPyrf8
WcySftq1mwH0ULTm5snxX1LmM6/aywVFbjZnr4/8yPOTx7XUYWxfIYvBYflVFa7BEJ6duhzaP7EA
UPCNE5GHKo7vRcc1Va8PDh9pDbtvIUbyqJAXLuCVjQ0Jf69PZ2dTAAAHgAAAAAAPQzDU4JAAAA
/ilRhWL/gPhA+D3ekI/pFGnYX1kJ9tEZPWeGmDwu7Z+fIwnBQ73aRwbORIPLUtJxZLEtNTkdF4j
KNSAJgtlIsC5WE6W/V/3wcvIBqQavyBqQ17YKxjnXWrM7M2ejNdumPOWTugFI4Hcg6wOpGCWNpve
OD8jsAsQ7KSsmQHfJKp2Y0lN/8GEvt1m3hnffQySDrMr5SavFkb0s0lwUQUKB8zeUqwCl dj8gJM
atWkkK+2tGhc7g0sWBN1NHektV0NRS21MVP2mKrSXjrdObTEjb2H2yuPeh4lAhLgHmFLCKVMtPtB
6u+6jHu9490vBwp+VhvKi6AILm3C/3Z7A3w3JetEct8dFVVZL32PmnYxmmC0BuM1xPgBW2s0YA1+
ygVBLX2zxKL5ui1YyCFYqPdXu8krSHKTihk6lRYuXK9Yacwk/VTMijYVKmhQmSaBDzX2FSF3qWkq
buBrFe07J90C0LVXvjocyn8CFdHU00LUX5TLXHYPdk6ncryY4MaXUJ/eobQLBST2dnUwAAWCEA
AAAAAD0Mw10CGAAKUyQuSc/4D4UjLLhIZjFwm/qCCu3QoabNsicci3Cl97gK3QW2xslFKV3x08
RT6YEGAfIp0ycy5zsZKQfwTvdEd3v0d9xtH0KMP8LqQF3jjWjhjv8WUsIHkL431/Rr+Je1VLc+ay
kwQPeGQa2iiZ76DDYS++JmHvEtW2JkVk0xr4TjcoAthUNPvsKMANqZXHbjhmpUb7SpWFcnm6ksS

b0yo7Y+Efl5tn7FiHjz0PpQyLAiTDKuyk42CUET5PnszRDw49CN1oWPa5mb3aUhaF7sPG6yfa+yf
EF9dSiqARoC2zGxjr502ZsZy7+TJS+lvRY7KACxr1x+/jLQ4B/09pS/4iqP8jvn0KTHNwyKrTRmX
hMxzqdpUJ5WJsw2gUKUZ+pnR0TyEzS1PvyheWgTtzwQVqaVJaKA2Ay70DdNLkbXV9NqL8KzZH2OZ
lnNPJgypBSz0vVxI6czkn04WYP/EY8IwjGeKDibXzPDZ0XP3r1AajMYWX+0x+au3F18Ba1mEake2
nJHpfk9nZ1MAAIAIAAAAAAAAA9DMNTgsAAADR6cZrAv+A+DutQnfj00mPcmSWSlDyJJbDK7Yos/jF
cKfxr7trrysBG/6tAhG4DRXu+yce9dS/htdp/FI4m4/7km5DqB+eSby/g504wvMgkjetixX1zQQ
k9fD+HcD/msb+FV9tLPcWPSicwASnQXVqyRRj10muHa78Ac9JobUV/ewYpBNZGHTCWGyWz1U/cAp
MT9h2+wR81JAQu+3KCos1n/qw0rTxfdmqPaaMWeiFK5vFMW8pX81hJWVL+E3URis1nshLkR96PZv
mHoKUD+y0lCGwtX7NFDu76vc8L2o9MB6+HCgofhY3BI1VFuxExkib+yyMCLPtMbHHvkE4fHPqCQb
bd9YfD0u1anQ0/QW6QRyof0Lc0n9/0Nrcup3dSenM/smtCT55Dbddm7AXbADjCFNqQXx0Crd+fwx
aRFRv10i+ytIMttkx3MetL02HpgpRzhpc0qqJj0hZdmkvGF3PGTiGREMhyhQvEAD/OM0ujj9xb9Z
/t4QZQPQeiZHVZUs6Idh7wBPZ2dTAABAKQAAAAAAPQzDU4MAAAAFV5RdAL/gPhD9C2BzH3nd+Bu
qG7U+JvMBE5KyM6v6wYaqlcIFd4y0zxH5y00qF+i3WK0KpjbEmsRC03R1xxQHxdmwVRWFb5DdxS
l50BWEhhJwgr9vw7iQZwx+wNVyH5Uoz9NTQwzqPCRByA2mij7dV6cEREgewGqZ4fzE76QmrvHYLb
7dNk78W6n0rqpqt5JubQ3RfDtQc/eZasBLqcNM2RUvee9ztn1//l81fNgLIhQDcrVo/TLeg2NGRc8
R1f8xAggodjnlGABlvBt0sBiWiIiIvcPxBMFE9fQu0tttZ1ycjfrxaRdi+2NW3bzynkvAmqIB/YWD
wqY33KmkFDZa42bw1j0LOVBDF9ZK6GBX0x8eaYMiye83SBAXnMRNrmYNVEIj6PcxqtK034XwjE8R
YxjRwqyeh0kAjKCN/h89qjETp1+tmWTD0sFyY55ydEWGguS4wm6Va1R98aGuTf+igP6NIaxifwi
yqP1PHgTiWSDTQSLla5wigw2NFPv4jRTQXk3h9F0T2dnUwAAAC0AAAAAAD0Mw10DQAAAFJ4N/0C
/4D4UwydujXWwxwXvBIN67GhouByCCZMH80GUtS2fu4J+e/7MJ/XvPTCL4ycil7jytaTiAS0bwoC
+kA0+E7s8NwCAoCwsBo1q+wmqriEbOe0HYTnddaJEZ206cDW/iz4JvDLNaBbcZaSu+03hjmFfgi
PJY/a0D05k0p9q30Y3bX4WzoZD4b1fUEBWy7BmfPKTC7IwgzfsfsNnt6e6/wxGzouVMxAM9tD5k0
Sgufz0d/7QE3l2BflwPKFBT4Si9lGwVQpkwCViNqIvm/UoV3JkMDBkeDsCd6QE0pMYen9Gzf+u+e
uC+LYnEUQkTKXi4iTGQTtmW5js3AYMbLYdcEgSJcKV3fCApZrdEVYV1CnBOAI2r2lqxS5zsky/JAQ
S0HFDTTZriUT99u9UU5gl7tx4Bq16AerJ/80pnYSIGfSyEpXB4nnNzzm50GehlD00dASgR7aseSK
YJ8W5PfGXvjDWLKBlsPCNpuFklJlYc0ZDWm6Np2R0cnZRKzSn+D4sF+sZk9nZ1MAAMwAAAAAAA
9DMNTg4AAAA0ld81Av+A+E+7X60XkxVuoJ4rf2diZ0cl5rPhlftgeV0vH16yqojLAbLSaRo4760l
x0w9h7jBsRChe+VsAyp09kJV2i0ljxbj1wCQ6zB9V7NqQgNfJPNZ5opbRs+C+0ymfnsYtBg7rCP
myM+xp643alC9ULMcntZr9e0TeuB0h4Gsq9SWMUKa4Me0TkSxNskKpzAAHzBwBRaw+uw/1b6UnlS
eM5GdsjVEMc0XT3vFzdz7yEfId3yDCWELjRckIsUiMiZS0WEDayNXW//04Y7leWI3Ye7h+e+Hr3
wb6c2bs264JSusk5cP154I5+0YCH1WrXnG7o0+MRsZF0De1MP8eYrQQ0DM6TEKEliPlIKHw6/+Ed
HStZgt5DYlNqhNwQ4JIDGPfyZlit+TcjCU5VHQ5r9ZRoXh3/vUZm0LGKmlPXoWiuJ5pYPM2ZbVQ
AZAd8qSIV50xk7k986BQ3pWT2BexbCDfVEiuRba3lX0uq+w6YH446hlTkNsFBEHM0Kjd2ctyscVP
Z2dTAACANAAAAAAAAPQzDU4PAAAAAnm+GSAL/gPhEN0zQ7ru6LMeCH03dKQ0e4W9XuG3lM3Mg/RJb
3UTTRFiXRR66L57cBandiTgp/ljDfHjak8g3UkipT/BLqvnLnMuB4ZCNZDfMvob40EQGDQiyJ4T/
01EIQ6NztLZoHjvF74NzkiJizn2umgY1GNZIA6Rq2ss5n+X4Rj0l5tU80FLpe0SWU6angkvZLDcm
MWC0hCUBpjPH01MAHUm6a/4VBUFPyefDZt1XtInHLvYUTuZq69TB5ZSTFv0MRWkvX4lCHNgHkspt
HU8U1rnuXq+zb2T1xbYwSLVx6erxv5WlWHriK0VxYZAIpyeytA+M7wCgGg/MxFJCLj0FGZmSbHBk
o2xmzenb0P85f7qXqDiDw7AIUICa+0wHSV4AaTd130MFEyDtuhI4a+kMf/qGybrf82WssWdUCMwC
WEt4+0xbPHFHM++/DB2QbCwmv0b0CKRbTqpEudRhYerqz79xr2kV4+qbvYezRPbfe92HeRV1lat
dEaEN1Hm7NPy0e3lT2dnUwAAQDgAAAAAAD0Mw10EAAAAAHmiDcC/4D4fwM5aR/VKYDxRMkmbXZe
Z2KC6o/+0P0c2NnL1bV0aGP48uErAIEmucJ3zwPfiDIpmE6ps53dJQiZPVSVoabyh1gaJh/0jku
opYYZYlxBt70ys9304N4lTnLSGVdHH33UxGws4oMUCBf8o5povi9WoRn5A49aXEuexkLW3Hidby
boUFUgHgNK7YV5l5eTq+hT+uphuIVk4Nh9g5SwC0s9IYmzrq90dptgekAtmopnwZSbh9ZHpzH0Xa
Dt2h2t+Uffys2kD8lbbTRPS28LcZHN5+w6bSQbXcVxlUE3+tPmcRnxlLeViZhoJHRAokte3F4+q
zpld7PZ6cJ89MdE70/0fg0Maumk8QFi+47sdqmYbDsJP+9PgTq+lEkF2RX/VFQiV06aY0Snp61ru
bNx8PmIIAbbZWgDC5+8fpes5WgnAb6G1BtB8GUS8El0B6k06PuLD88WwkPyUQU/9eq/nAAmKpEO
dMtWuq3YP3bDINibG3yDjfiUCJV1RDYLGk9nZ1MAAAA8AAAAAAA9DMNThEAAAA4h0B7Av+A+ATZ
kE6dqAn7IgbxY8aqRxAAALZowg5uGBLZLuQutGn/gyqyFQLYFXTwi4s151yzjm0zSuB4PcqH633o
UsUxncs9r1/1Ki9P7MK3f24ab4FkGtK8QxFzg1c1bdLXM3VAyPl+rawkr6cWzIm2dbly8PGLrIKL
iCvsxVikS0dGVPcewtj0p7MIlJ8+3G0QNzKXVp0KX7z6jAR12Ty1P96jPX+2B07ij0Hu7y6Jodom
9abPb+Asld8DfKp3gnA+0lLJCuwtdUK8o0qt1QV0PNk1BcTYdiYgB3V1GGL2um9+KYJUg/qeFvNG
6xX6gqM/FHxzUq1Er9mDeDJfQcge+FBUT1Z0FGWdkPMWP3dy5EdMALsnxjS5rFZgySflc0+PHDU5
UkmhxxK4e6D+rr5WuHAzR0gAH7e3NprUzMPJt1mmLPubR60yzYXHYY/2FqhN/GLgM0HnebmEWAev
pJuxZN3U7ld7MLjiLiokNdM110dqu94vt+fs1voXgUvFQoadPhPZ2dTAADAPwAAAAAAAAPQzDU4S
AAAAzuXJbAL/gPjWJMZ03wBVQqGKjMKNKAS9ubpF3Yg7L4G47VxFhy0GtfFe0YuNA8Ewc7LVGi1e

Y+Jo4d0QMjGIA2EEC+U+lNj8/m3WsReb2PkN8sGN0HXZ2nc/LsSjZ9sBJ4BfB8/iv07k0E2RKET3
2fwlvXIqhXB1GYKC3N0sKBGm56WBW56bQd86TYk+zn7PLRCyTnywPuwDnhLsCZ9NkYLZI7pGylR9
RdVYPnnKcaA6nfz9PjJ+U+EmAJLcD4Kpkt5Xzqqq63oIQ60yehI1GkRIF00i1KP8gYmMAt/Y1mQD/
bLOGAraDeSR++zIfnyRKWxP8L7Um4eadhco/g162XNc8Z1M2gRnzC42drDhWeBQAJEpD/h+fGNyT
uXv0eegE9y8ek9EWon5saAmozUwbZ9tJymnTbTLI3fto5nZJsHQPdS/3aWa1LYvbtThI1xWMEcry
QSYVuf0u7CpH01ktpvnn1lDhwo2lc4nftsURC2QGiwU9buyNmfr1jFQp5hoS0LDZpWLGt2dnUwAA
gEMAAAAAAD0Mw10EwAAAN/p7QIC/4D42NaXxcjcnosd0t+f79WwqSXJL0DnLvpYvZmzyNB9+Hr
YSdIiM61Dc0UgJMTf83WTWzM1m66oiUUL1KcJMG4d0Epob8oV7P63Y0bRYYkPcUYDqX0i025Kjia
RWadozk00jpQ5Au+zh4WUM9DfXYKqI3vA0DfI6ySP9gf+AafbePZ5xS881JJZqD2x9uD07ZN0Kpf
yRUNZK6PpktSoAa11F9S7ELeMwRTcIZopR6Xvl8tMi8t/c0keMc2p+ae1QGCjZzo0QZh5hAPLlIE
BaZwjZ010WDqDmGodVImLOAh0WQUpzWIX9WGDkuRudKXGhCTlNn3F9277q364GAF6I9Q2VKp0wOt
VRnv04S8yIlj+MeNqKx4RVRsUw/tm0EeXoNc+lJ/AuGw7s0LPyAGzCZLPDVm0xwxPTEqJ0E5c+fY
Ugsh7ydHe0Up05Rxdx2S17eoYzNoPXW2r3wcWfqtmx/6roClD6zhjx0qWxt3gPUQ5kM+0rW8YY+I
KHgFwniiqE9nZ1MAAEBAHAAAAA9DMNThQAAADwrn+IAv+A+NifYUR16+pKX8yJBxHf6fHdb/yL
iP7NFGtnxtEA37zUhYJ1J5s8zCh/0xp3CSXhYpPhdAodFMwWNEeNqHJ++X5Cma7HK4uH129eDo39
f5NJWakDkXeAaSJbXpudyJvr1rM+ssCAMfwCnqQbY8l0yNxnD+aRD9l52w2g7oX/IFI8hGGNYAcU
0NsYaq+56WrGCZwSh0BYDengl0E0iuXuL+mxLiWM/9AR50i5mW8Q3jPFa7NsrdlUioXkzjuvkbqU
WI8DCyCTKWbSZo/KI7HofPQpunI6BLIsXD8hq3KAUTNPvzNc6UoAw1U2mWNQzTLvlyGzj1P6nL
JWIn22cXRfXfj8v6aDfFJNXuaC1qS0dxI/R0QicnC3Dk+/cCeD5ncVWR2yDauGtbWkXiracnur9
yIc2Jsc//V675MeqJHRdXCTDGTqcn06WvKFHoA4J/eKYTmShjwDYW2gBX/Cz071zLTUjPfvQMdD6
ySw+QdSeY2TL6vYu4fFe6zAHBJRPZ2dTAAASwAAAAAAPQzDU4VAAAAwcit3QL/gPjWG04QVat2
qaqUPfETPXtk/mHuD658YSoTwl7k3Q083lU+JN6S24heGLJjr8E1FP+GqdJpdkbnt74lKTAJv+nb
kR5RRmxNSlQPotpkvga2QQYaYu3u0AC0+ncwarR+AxzpN2v00MSsQAQuUoMuMyv1QpdILsI11BsY
ls4joERkchjDiuKQkY3y0tVHh7HuUBWTgyvRuQFpt06Z4UBX5Lz8yvDq8b/1RbvKxeBTnnklWUo4
oMsbs93chwuvjTeLaxCo/GYEKbZpEtaV8GuJijQCUNjjfBNBmaLHvG0yAPBXjZPs0PGxwAchQ8y9
0EXfYcSCImNKib459p19AbI7dqop92prwMeYuC4n/ATVaZHNu45rFYcYuoS4pL4SFIVTRKwtQkN2
FVNBJjaiL6syDKQvi2V9X3MCgoZpD8u4/VJiLHwJENGLWVrw+xGARh3/eZC2Vi6TDaLc6Fjq320
yc7ihFt9tSBMNlgZBYIO2ts5anGbNqxw5WPM/DdGJGSNT2dnUwAAwE4AAAAAAD0Mw10FgAAAL+F
BXEC/4D41qGg4AxGbmK4zjbLmLAA7+der6LIzNp0ThP/a30iW9NGiCbboml7hTlW/jh0778f2Sh
KR+984X5V8AivV0QBH29UF45S/z+6lRzjKt8KMwKlsQTS2AWiCotWRX1hU0U80CGqErHUV4W8jLy
1Q7Jra2UEFv/S0seuQ38r2QcZviwSGtFqJfKPT6n1BUE6lXlZINyeTLFAHamBAMayyZZEtUxL0v
kvpu6PD+hSwJWEjRmhErWCPekwYZ04h0ZMjIeQpK00twe5oWsfEqUBQPWNY25gu0n48MaZcRdu+0
DBuYeZi3QeBZN2/K5BCf0+WxH2ixMRnHeCrI5kbFuHf4cT13dHX0BZGd5FV7tcuR7kELMJDtZsWc
01p3JLmr90sqHzIqLBS9nv14u2a5xKNbR7WlQFaUhFCYW/PeqsMJZsE9e+ne/98B8jmwDidHeWhz
xWwvSLS7PBsoONLH3/1N4MGHKCEwttr0j/XQI5dlebb77s/nw9cqU0itUu10ik9nZ1MAAIBSAAAA
AAAA9DMNThcAAABZq6rRAv+A+NXKDHWdzJspr/LJaJIFZwzT303prR0t1YUP5bdVjyxyeIHmM9Ya
1SvqFDrmvYjy9FsrgnFyBv1cgY7pc49l196VRrc6qRkfxHtSmLxiycVBaL9djCBwK4Z0L4gpCixU
m6XBZ+xLL4rksuaChKK9wWMS0zPT5VH90JPAAJXT7ZR7tQHB/LuLpUBxIHUWQYmEEw6P4pFJcC1b
w8HvEWDwzhiMarLFqjTgGhKTxVRUFus/8mJ7XtXfIq88vR6azwRbfJ8s1PZ8FVN1z3nfN2H4qNz1
LAbfq+duIEYCzbaxxQnh/Mz58wZfdTRy1GnHGe++L2L55gfHavu9L96atKZ8ifbv/mm3Ze4pkd7+
F0S6Z0L7lx+7107wTiRz+YgFmt7YlTlykgk13c80mK239gF/H958su5ffJNeJkzRvHWVqCYf0otr
5fV2sqXMa/Y5QlPPKwJWvUv0F+jJEET70ZGgwQs2zVRPpYF8154NVUj/YwKtTIS2aUjZVDLoFCVU
kaBPZ2dTAAABVgAAAAAAPQzDU4YAAAApT/5CAL/gPgQpTFCxdxYmoBV5PpzTriBpfbK1hTJHP1k
hTwP0vAkebCnTI34UhaIsoJy3f6ArJK9VFzs8L50i+3gtlLYPrDVQc4wbcqf2Nkann9K2iq0bPFD
MrBnJqA0NMzI2uvQXgHkGcy/vC0T7rDhBimkpYkl+9VCdMsxQIiIS/rpv8vGus0KkLT08LQWarrT
fzTDqlb2K1bsqWuRK9gnxohaf5v0kZK/N1t2i0o7HQ/luPxc04jzI9Jvrsi0mbgtSpqTeoju1FUf
JntJ3p5tKY9nS7Gv9My7nwMFxdWxb09AUGxIp+o2c7F3iV4ZRpwT01MuApHWhJe+9kkb00XB4kFE
pfy/iicX9ZMyFYFhb0ZhTowaFVcSpkDevKfLZ1ni0VXGRcSLRDaFqjLV56fir9WP4VX3zoIVWYF0
pIBngpq/CjF8T684/HxMRX8eNz7m0Vvw9tmdA5Y/SdS8Sm/F+gb3JRM4Imas1/gactuv/6ULJiVw
85TL0Ikr05pVehNtx7sET2dnUwAAAFoAAAAAAD0Mw10GQAAAGWT2LoC/4D4UVvtqLpJ57Dw6BhPT
Z3SD+rZZu0yeICzzTMpn8HZZckpKQ9BeR9QyzedlWNNaQYajRbQnr3bm0cELL04kSdmDyJxv8G41
h1YGR3mKYWTJcc+ZosUoJ9sGMQYBQKCBaEz6WXGfOd1QKvNkiMQRQ7mqH2/QWoAd1SM7GAXH1+L4
UyA8F90jwgqoirgtQFoyny/ig4UwBDDJC6KPKBWsso64BFXsRXtq50GGztYLnqEVYFr8VifZG3t
12a+c4Gow/0HmdKZRLCfLy3li0vgWs2J7CgMAVn4lruLVhdmjzscAKxuh1iCMQUcFXtv83tvr26l
qoopjHkyBly7nn4e5XCM09aKcalwZdLHhIAB4e8Uom45eqcinzXvh8ZTZDQMzoC/JvhJDnV9v8k0
gMP9zoYZCo8apiFAZVMR53lcxUa+G2KV1zx/g95hWsUQtplaFmbXbGkVdFJ9AHYzr0Q8Z7tEXf2+

8wWn4ufNFVCAvFKlr/6Y8ppQ102ZG6gp0mBSUE9nZ1MAAMBdAAAAAAAA9DMNTh0AAAD6V6DqAv+A
+HA+Z0CzxkfKXF//06nWS++fQs2eVhLfJXZ+pt7PqsizUXCXFlGDWUFpz2X0NYwfppcFqSbv8xlw
QEwddFJwbLTRqCj78ftMXe+EoQkcdE29iYe0hyfxIFUy6Q8izKU8iW+2w2UUKF4zXS+sjaJE/zSv
+ja03t3DPBrYfJmYdQEnTrXPSUGx0zQCbNSvhLqEdyJRAI0DwJZMwkv9/U1DLJDzMQ8DD+0r1a8
/i85Jw1e02990pXYZC3SNfg2Vsn0RyN4h7FoddE48LbrtXDcvehMPnDMaXTAXeDJcs52ntDH3tQ8
CG+RXeFWHVDU4QGiUx2ogKRcQqmgYDbCuIXyCRLhrI+jD6Phd60XDKuDl5OymqGMfxP3Cu3yjrhl
b8LqRMFzcaSG8077NcFDD41AoA1s/ml0lWMyLkg9rgisqbzZ+8euRXiVZdebLUHRR80H/rXzDvMh
o1D9qSULJ4mLU6+cu188UgDQrhDC5zsHPT32Lkt3GBUXVx2rCsPl0XtPZ2dTAACAYQAAAAAAPQz
DU4bAAAA0XLLpWl/gPhyochs2yvXFidAhsEgYyclkdJQ7PU74b0+BUL7xqlYTs9RM8uMwXBHjg69
VapyT3SMaAjD/OXapQCy/U3TL8mdLQHUX3YxixVjWpUkMeAAEBGmSqHbjIppJUEoClBd2vfr2ZHM
j4h8TJnyraf3Etj01HwSLdzR6neGbKojLoDIXsCLFNPE/lu8caIoDlVZhxDqTI8WiIhkjR5BpkCR
J4X5M7Xec9BY/U1Rhv0BmJmqk/Z2fAsTrBH3PoGH1Ffr1zFZBfpIbnfDhDFL+MUH+7VV0GR01gvm
IJJD+GCWiuJLmpjM1nHVByyJwe3Ge4+2vn4ExKZYQJ60FE1tG5ltNjb7UKkjtuaLgRqZLCKcwJe9
Xer7w/hc5dW74BCaqaAch0ZiY8JE3LU1a/ANiK7j7W3I3Za7VaRZIch3dg6SqNcnsqpqIkxy2Ha
lojovlz0qiyqARmFJaDBWfo50h+SM2eualYrh0VvK1ld6bI4HNM08d+WDWNHFzbsZ/xvB0vvT2dn
UwAAQGUAAAAAAD0Mw10HAAAAAGmyEgsC/4D4Q0Yj81pglPy1dgJyXDNsmo5pCbG+7UVgig8ItXkC
1cw0Yx8KEYgPQzF06jQvELa0vIyh0V22gMGmb2U4nkzedx9FCH1Ea1hXj03eEcTjuLj2W1d/Ptoy
vF+zXYpXJc8WDX0Ze4tamx0vWBEtQgLB18ny/mw4QbFv0m3v7dpQa0tsLqzpvwbTnV2z2FuBJFmG
/++uXDbEDX003SurHsDwZiww01crkUjqjIAyr31uMYQ53r9kiYoB+Nx/QGB3W5C0Q9sVnFCeLfrG
6YgLOBpLRPWj0QVuDYcANb8RiuwT8ZcIRZkgKE1Ugy8L7gyfe3DnQgMIQGVlllSnFca3+AHiv7U
lFcP+b9ZEyQK1flnNWTW93RvWT6Qbi7YfId/x3IhCMTTPzTlWkQaiMFxec6LaJDr0WyFuAKwmlfI
i3pesGAd4pmOUWNBArmWx1t0hZs0yg04dCsHixM+ZUTK+q3Zor5asIGsitRSHaKI0bREGwjRH/ql
7aaiWkyF7i7er09nZ1MAAABpAAAAA9DMNTh0AAAA5ah91Av+A+BjUaAnlIXDoDjKDLHvzjxkS
oztqWwSz/RwYBLMmAlDokKHL0FoH2rDpKe+x8qfooF9SfRtUi0ekBiyJJ0PWehVPyVz9KsTDJwLR
yDuLZa6S14UcXodEgYgl0Gx8CmaHPfteF2rpwvbbZnNj60iF+4PtwtbJ0BRNzPKmhg39ciHuvAm
wPY3hIJsPCHPC1IhByYevTT+bFNJs6H2Tm9dC7bDtqXowRz+bZGj+oFSAwp19GWsctGtMc49BHaC
ncZoxQBQgeaI+4GoZUrD4u/CnqpTgodm3smQUzLq9aPnxoLMqplh1PtWGX22lPI59rU3tWpak6qr
vJQsDPFVfkGhJ5yWH2tWN6j77mzqYAtThtuBDSYBGHlPqHIz9KTVb8ap0azzhfuijcrYFBsHpdh
bq9cFhmGv0pHsFqizKJiFuXETpxRoiK0I/JgW7TvI/WoRtNwD+rcbpAN60AoEX8Ily0Z2tffvT90
ktjFcLWUpb9arUyNb0VGdr0bUC4joTpPZ2dTAADabAAAAA9DMNTh0AAAA5ah91Av+A+BjUaAnlIXDoDjKDLHvzjxkS
wJAE+BrnIbD0Kw0a/gMwvtw0Ux9p3GL6odtF68ZDEgtuNtA0ptIrEKK14/0GLCXkqSyyi1BRXTf
002g0tptZZyfo16cT/rwiF/wmiAYURZ00PWp2yH75UXaytKj+vVjHU5oTcLQZeKxJzqAdR2ZGJUW
azi0RbCTaUv/+tX2wpKc799x4FB1KjWjEwFLJ5h0L0AlN7LE8bEdj8ZW1YcteuBK6TlPyr460Aw5
/fUZPA5piBMR6pbzz7iLMayD0AGuNe62IirvqPbeMGRYURYbcwPQRr+WKGyQpYYH6BYP9B9T453k
Whl0fFmwywA7MSDQJCx7kCAY0qfW0JA3vkWyt151NWSGxftD+9iYXW5xXGVCG+jZ3KbykQlg1UrV
irxU1zGLWilaRZhxwD1I2Y0axfpmhiazV8JuuMo12QnXYz4KFTqdTuUNsMZ406ZQnz/WrdNe306N
80dbUL3bs1F88cD3h1udXtj8NgDYe8AbVUZZEckLR6KpgalzT2dnUwAAgHAAAAA9DMNTh0AAAA5ah91Av+A+BjUaAnlIXDoDjKDLHvzjxkS
AI1qlFYC/4D42y5REPGGKqKxRE+EA3NgYKRYRr+yTtdlJlmlk1RWZX6GgeCpG3Dboas1Pzk5pR0a+
4vmvYiZGSA6ijCmiQD5WLsPqKSr8yyRtKcVENvifLnfXT+MahUwM3/TEti/dyC9Z0pi0h/C9Mck
zsKJ7aMatWVcw/xNev5vb5T9Q4GI7+yxkd8g5YwLkipGG5Pd8CGtHv4EUcfrne7+US+h46LF08J3
0wqK8SAyhW94dbwNZ14c2/B49ee9+tNTP0+797KUsInKvQJXfR+wnhXdtgdglW00600dPB1FP+7gM
FilaM6EW7pu0Da6cwL1XFp0NUpvtr8vcL0cCTVN62mPZiCp80c2Qcd9KbCEV3rwgTzi0USbF/dLC
3HGMLNU21zQ21xosgxpooC5QltYnjZhq3qzCHunuMFkZzVm/vxLGqo/k9P3yhAak1Idoq7YtbGPx
EapLjupke4j8o/Lq/ibqZU1K6gjM0j4vLAcTLZKL0EXGG7+6c3iJi8bNV0BZWl4ycE9nZ1MAAEB0
AAAAA9DMNTiAAAACqTBX4Av+A+NZNvwvzK9wKbgcasv48qytKxNQJ0h61kR00aln96fj02uwd
q4+zfTDK9RHKLm3sWk5IBCZ1y3WgMPI1TfCx06dnf5ddvoJnbicuFDGzNVPkBFi7hwjbPa7iDDSz
IvCxiCU5RHR0KgJl7Ac3i0bizp/LIMiHvIXbNy78q422XG6LKwgKDcnQi4+180480uQtUCS+jAur
0+ZAwEQw49xu0ibLMZWAHME134kGuo/Bn1AHRVnxKvvenHxP1pQSCvUhm0GM5ZFQQ/Q9ZuBn/f
+lQYXgvQ0pQ2zb8LYD4GUH/j4gPVAhm3D+wE2Szk3xzAnwAsE+UeoDjiB8VHh840SJ/W3LqZrCa
fP4kC6Y10gfn4il+3q+aVjXU7GfI07+HZPF0JS4De0/4M/AytBnbGhDsYyLJo4zHL/bN6mRYSQg+
SEiy0syg0d+XJQAT3Vl74pAkmmT8ZL1AZHYLW0+szccCnm/HJpCk/jmBW+Euz3tci+pfy4gzXD/Z
MDl+vKFPZ2dTAAAAeAAAAA9DMNTh0AAAA5ah91Av+A+BjUaAnlIXDoDjKDLHvzjxkS
uv+pfHv9tzU7Qkrhw7lf+fdbva0edYbrj91Uq3AT95GwEvKZ+uZ9N7h+zJS9A4+Lg0G5LTmL8a4r
5t4YNQzoNEJw+AWpDwq64ywL3wZelG6qW78bGSvWJrapY9bgxGxb7FrcKuJAA8K0+6c87nwEaAHX
4mZEDkd+U4MdTkK43dqhKhD9DuU6B/mcV56oAECdnFVGKpkoK0nS2u79WS0Ph5IyrV5m9ftLNkvH
x/HkwV8orm7VLhzn26qylfJxXEW5zXNi1wXl12mDkY897f1kK7QaltFDM9y9iHMKH5g3tjYBPFcM

79I2n+9JMMZlQJKElfXgz8izJPwLg9oFpt026HRsnYCBWrfE62VuA4TqcUB3PrhWtLUopNdv5b0L
vg9YtRy9XnZ9L7arBwttUxdRKlqpJgJw+2Fgf5VvhHp/snImtABvKE6l2xqM3YYhq0VPCYVvVsxN
QCU+VScrUBboFTcEBDqS9Ry7T2dnUwAAwHsAAAAAAD0Mw10IgAAAMK0rUcC/4D4l1m6msy1v16aN
v1DmRALw+rJw8tL/TiGu8GIC9y9ja8Nun+D4Fcbzkfa06l1VHsmGFY3s4D0ru/ku2rAACokn7ypU
Flafi44dvLp2hDhe95Z4qsppo4toa49ZQAmF5s9hIBuwmvXPK9VGLGSKrRarLhovCumbpBxzSKY1H
8Hp6yozPxiMwWo564oViQgZZfN4MA2lt0sNHmdEdxdX82QWcKUVrUvp2uIVt48kKzSvER/r/rB2q
/1aiQz2lAVqxhgszZuw+qjz0lPwZGoHgKESFGjfvgnjvj2NK37q3ypx70JGQigXUcpNAprgszWyU
IjHTwn8b+9zMnqSxDU+1ozM5e+oQBjxQok2sVAzkeJhCl3mQZZbAzCutcUT60hF+T4WxmClgerTZ
ZcDK6spYiuFtREskeyEUyEocV0DRJUzVtHCsbQm+Qev9FDk0RVPpLTl5XT9NMMDmJYGRZzgtrL0Gg
GZ5Ym7ThusUYEaLU2MK8xRxpTdgbFrBTUbBkv4v7zU9nZ1MAAIB/AAAAAAA9DMNTiMAAAC+Zcs5
Av+A+N+H5NPerNjymkvR9J4Pxzz1R3jss0eyBtQTGDoD0H1a8y4R3FhqLp83wdxZuD3VBde3VGUC
KMqWAZdHIbnDPmqw7Q0jKcLAuTGLrfXzjw0tHRK5Nm7W7YwAE2X370mlgPwabwC0nhB9267tf+x0
837Av/5dmFaj7tHPebKWlIardHemcQxtMa1XjRMnsWwCtXGf+laqDqb6W6iJyyFZyuq55kE2eepTQ
9UHagyJX0iFjoUHKikMjPKujYAl1JlpBmTxcgu0FgP83ILkKwc8l/TFh+vgh/t4lg5PDdymFxlYp
ZZyHBt0MkVwkljXnL8f6VckD+rWB9Piuba522fnIsVdIILm3E+mq6t1g6EnHwbZgsyJLHxBS/fr8
p2FtkgVH9rbbwR0v5mhG297Zh77Aaj8waLoFUEUMF1JhAlpFmNYxDm7/+xvb0I0WGLhFzx+5hMK4k
57RiRUipEp3gXBx6n0ScFRe3FluE09oK1tf4ApcVtR2sTDHh+bom9ry2o/NPZ2dTAABAgwAAAAA
APQzDU4kAAAA2VZkUwL/gPgIkt+eKaHvuY3K9xQegTCX7EKL2LxBmKXkneWfIK18zh5vxzarLZCK
xCHFSXU9wLmaUWvmXzQeBmzAa/acoEcEBLzbn5KLXwG7l0V6u0Uijef4gaB1AZHirZmdfwlGvHup
F/7nw02WRLmoc0QeucLC3584CN/+uGIHHLBLJhEk8/MRujxLX31EpS0KikngJjRnra8SdrNeDUK/
HP5Apc1xg7TT2mVFT03FEa+B5yps47IY0cLTNK5V0y9yIrGd8XlsvgGJLo3BoIDbewz8Kam0znnA
TjjrGMeYzQQGxbtawG0SgGZ5BsoXa9XncCvm75P50ufB0aI2m5bpSTGxUP9R00E3ZlIEBPXz5fe
z5QN69+YyMmhjFDiazWe8xHdFHK/H79/a7mxW4dlNZAU5ebDZZvG0GoMDxFy/Milpd2Su66uRdn8
w4pnVWoCNNwuNULetgjbmaVwPpXGUjPnz0vzm/kCW7VQxT+ilhpuW9SDzBGLuri0Kuy/lKMXW/8vU
T2dnUwAAAIcAAAAAAD0Mw10JQAACYXQ10C/4D47VelUaxc8Lgk0VZK1Ys2uidetGxvjTUFILRF
MmxCOGh0lpTiEgLU3eFHHrC+jwPDYltXE2uDWFBZYH0lhFQN7V7LNYukcEzK20K4VW3h77hbyM
/glFzq0Ev5uKTvehT9Eh+YL3sfFUVutEUUEfn7FdCkg+iv3ICeyQilxeVrt8CEJm/znlggStTsGr
y7wNq3DXrdtUVliYYFtpQ+JaxBj8PBRbtvYifqr2X570+QSNestdDkehM1x66Px/mdmPTf6gux0J
TU0lt0R4ZGnVfCl4lXL9XlJ7D8RLvhA3qu6Utr60z/dq0JiCa0UIYFo6xzgPEaG+KH4Lf+0ZI/LA
3TBZmT3tRxEpOn96lWI9+GAfTEfIXRJiaxdGYiK0xlaFh9t32+hXsTzXN7jjnfmQBBlFgL/EBLZe
d6vaCQRE6s2Yi4TVd0o70gULPOMkKnSz9l3j7/r+sm1NP6i9bCXW6Pps6euHKjKksW9pvoH8wgqV
969ExxLj7WVMDtP2E09nZ1MAAMCKAAAAAAA9DMNTiYAAACgq6WbAv+A+01XPfk3W5fmsajvL/sT
5GDZiREdP3eWNgwgC98YiAHGCr/ftSzWQ56RQfbcM72ypilDJFcdILY102s3rgmlHPy+YUq70fRU
eY0nUAltd3X5HF9YPhyn3pS7lQzKcIY0YQ8yym4wGT88kugNa3+8xnk04ihxgwUKRh4of+EBLqrz
zEDwewbH4+rT+Fl/q7YabTBbRd2BI1CYgYI28lC9wT+r7faXGmY4b9c3/3l5j0mC/NhshJQ4vxq0
5UzB3wzu7mwZrZccbxmogSxu9diuyUf4CaUhb9K7Y0mpV0w3J0+9oY6gVQVz8YdnGR050SbKVJFo
V3RVPgYf0H6YracHkNEFZ0a+XXjRh7DNb41ASz7ZlNti+tKXuQJe+4/KTldMMJt/+geANRjZvNta
ukofntBwANlfam3P1THnb52qpmEpUFhZSJ13xgim1IQhabRXKM9630i++RjYe1lichTDEdunHN1c
LSLgJbuxcnIq/D1Nnatn9brj4JRb4afm1hNPZ2dTAACajgAAAAAAPQzDU4nAAATy3bbgL/gPgB
01Vevgt8IQQ3E2FGR1DSnLQW4EDMsF7Mb0nGrqdQWQL9yoD8fI5cqHKWVsSoirhQdw7yCWuCTUPU
mdea0W6C9YiIWK2ezL0x2S9i8Q6gAhFZbbjbnIYd5AjLhl11SI4y+nMZN0qytaZxuYvmKERdJ+tr
lgjagVgW3XG78SEoxi2JVwkFKZo6eHs/AHlfvS7ZH41uT+0I1Tf2UcfhoDV70J2Tp245A9HFA1oU
X9U27yKlNdBApUNKNuulFvtIvH6gth+aUrhPRsXGMB0cgaq2l3Ss2ZCZZt7dRysEEYn1Pwr+HH20
2bkaVnlhvv4NOLJFGi+ZJerPb3LZEaz0rgx6qPbPqVpwpEjnXl5QZplP2vGRj6aJiqWi0jj/eVp2
H5lNF6J+by0yzL0KZtIdo38oEVazliE/25096bjnDHZ4zxymKddWwismXEh2dDctTqGF08hgTM8R
IrA8yJ+9b8DqgStiqDMQWxLBJQzmKw20nUJx0ND/y2IyzWu4Vl3LT2dnUwAAQJIAAAAAAAD0Mw10
KAAAAALc/csoC/4D4GQhvmZLaSFvuMdnopvt+nhj9zUSb40dgypru02YYw0tzSjYo6+VE6FTQq0Sk
38Pd9m8dHjrQ8b/Kovw02NTxW0laIbWH0z4NywQyerXoZoiM4BhLunGZpG9HHhY9Dtbk4JRBgOLK
Jjnll/pXYTur6GTU9cfbftzpm47IIaUNKpoVfFlN0+9LNLuR+Wi+bVZS6ufLl0zi09rau1XN6X
Kv/CQtnyEb77D4vrnHMTICog+fWqFgZ8yrMRBVDQs0rbouepiTTtBNciV2u6V+ruGPiul2A4n4yt
hKXWki92AiCaj+dB8pZUYBWfkn4zpr2lX6Z2wriqVcbD3R5clh5YmQ54hskREji2UelZfZ703Kam
zclJZievKWbYsZ+NzbmBIja09Q0AGG8cX7+VM5vDK5BJxL0j5SEjyUxV2SEwt/iFpcc1TgPJJ+WD
GTdeJQyeYKusSz8mkCRpEXobd89wRZDVLrQvVm5eoilimxQjX2hlyIKmium7iDzs87+Zb09nZ1MA
AACWAAAAAAA9DMNTiKAAAAHVFDbaV+A+A3ziEz868/0bKjNUaa3DtR4440P0f3ZMCzrLK0krv4
jWue04zwWi3NPxiHve+5g0mX5kpoX0zYRieVstCjdstKckAiNLUB/TSN+mDt65IgC0CqD9hHiJ2
qTQi56h60uZHxm9cTMPrsE98wMEcvxD3Ia5zeG1t04uuv+8N0wzDMxPZM3Hs3To1jydcasWU1nbm

gHDz2kIikRDwmaxkBkxGbJyEbTiRddU74/P2UI7H/IF0PtK8mwKEENKj0ftzsja5yM/HNPtNfBGw
CDL2rVyBjWH0KhmeHZRZABY3Qgnej9gguaaSDGRdrkJDDE+hGssWAcJNo278JrqCiNAWG4nd3fL9
Xo32uiFPEeKUSb0pds81qSh+gDRIWxXcDWKL1/Vg/gvq++t6B+670iaVU+UvTHCPIImZtYpPGxkPL
vK80tUFs2pE8H7G8YZw+8+fS0bsffKGLqZd7er5h7uP3BKVUNlMVEQm9cUwNlRnXdqVS4zuT5qo4
x/p/UQAmr+FPZ2dTAADAmQAAAAAAPQZDU4qAAAAABnAEfAL/gPhydNsdqmfbtarOVb4qwmTu3S3Z
CGfYglIjOmYqLKr/Gf9tf+l9hWPKmCp7+NWU/QhYCd5cx2PdAa/7r0XH1xFac96mXV6VrRaIs4zH
WxeBC3v1I0EenbhgGwTGX/28VjHP4lz34M/7AUNyZa+JJiJZ11crolvVBTTcpGYveRCv4006+GVI
Hqc/C2P0zckCggQLxdMrqduU/+TloCr4S+ngfS/00vPCy1AfZjU6//CgM4l1Dj9F93rbVh+SJKe+
EUi6+sw2MyhK3Az0lBtQS59SkJb9wdVCTBRXgKEF5dqiKoR5/BXcoaBRKbjA56EveG+DN35TYDWL
i3as0JRpODTAh20oo4lixVVF3WP9AAMfax09/4jY3LYPkbooJ0dAeXBYxumquFpGz+QhrWX15ZY
YJjweNmQJWkrBQww0NK4UsKmjLYD+BXR3P4usl2Hr9MQeW1SOPffJfqoXbcki2facxHP+lCgTl0m
lFlbNoJWXfJKYtUsXW0rjnwIqfBhT2dnUwAAGJ0AAAAAAD0Mw10KwAAAMUYWN4C/4D4dK3f2mTH
AUyDQkSsWdhjxWKLHFL1+o4XcKdoVu4FUCCJEa3ocR+7D8BsUS/mqnfM06N7MkvuW3jxpz0u4kk
lVGcYnG/7j+FC8txbJ+9fx90AK7QpIE1/6neE79HpyQnJlM6l6bTNVIDGNmBVPuiq38pqYwneja0o
7d5X8p+K2n7FxfzA0xRAWu1tAX30D8SUPtDvcXhGiaWNgx4yEo0uYcgMoKPcc/MJB/1j059ItRLJ
gEd08rhfDgwC4K4bQRbHz2wjXbyvrSwfGBAL1W04t/FtTY4t5T0NWeY+7b2npi+wg6e3dPYb8zNJ
hu/oS/WhmJJryhG8vfueQFaJEqrDFMW2Emkge6alRRBB44CFpoM5q9Lle0x0HzTsLUQAv0J0No5J
ILYFi+0/zznzAE3bjvE0IHD0e/SE9ng+KuaE+Qm0jYmMDcp4up1q4J1TDxjHS20+85MhENDjPycj
1BYQ0zqRymLQ/wyA0QXqMBAc5pGyNPt3WZ8wD1YDZGY0ME9nZ1MAAEChAAAAAAA9DMNTiWAAADe
B7XqAv+A+HjMPE2qFvt02fs83R9w/i2BkklB/dt02PtWxdy3tMmk1TBDpQSKbxdz6Lx6Wnvemcj
8bAPqGtjn1351iJAtIvqktaEkNuv/xdF0l+n4xqtPXbLw5Hp4P2XcNN05g+Zv8avBLtysgRbHLW
Ue93HjwuvQNXJ0m0B6RN1vyEjF/uqPbEt10LzkmTmXzGI/zIyKSvHP6DRHAP8mTZ0m8S21XSRwy7
OuMRDIW0//mjUCIbif24DFtqDpQcSNINVZA0jy86KyW2KYpreIV8GZSkolh3CmsfLEjfgx0zL1Jm
W/waxiv0Ubos58iJsr7715Yfb+mLcSRux1Lb6j9I5pricIBuhdG0i7T0pyN0+4nLvD2Vns0HVDJ3
M6s+nLN1+yaP9amuu+Ms2hPUIbaBW74GF4ebSpE6UVWEosvM/hcnHsZnGkzC2ioMv+7BVY3TMHhG
ara4QwZFS5GAP57x1qJBWE74BzXQk2GuHDMj5sHug6zf0lS8TokLPP0gNpc6BN9P22dTAaAaPQAA
AAAAAPQZDU4tAAAA68EaugL/gPhQaK7s6RYNBpBIGu2K4VpXE8zHlJ8yI//UyQEwGwYmST8fSWx
DPw9WqLJJA29ECIZ7rYxRCuPk9+87yGIY26jiNkrYImSK5Iptr30tcKYL/A6R+S0aECoSBTZdr
hRTvzVx33HV0PFT3Vgxq0vtd0JAfpe8TL/3GtUQdz+04juM9aE8Uy5el0vcGloo3ZFKxbSwHinUq
PAwfnJ6/MEPhp2PERKg/kgbvt7ZLLULctWbYmpDyYwWYJisNte1N1LSP6a4AKMkjrqY3tZXmHFe
yBUNd0073X8Dh0RQjSjJNuTPVWkoQdQ6jphjD7pnUPH0052Nmvpz2Y/ElbHg5zCPGzQxCcujr+26N
t45TCVf8nT0zV8nDkJnpIt7QB3dk6GBFb0NsFc8o8RzKSttqDhZNS44xYTVR9123f5oIrz4dN9bH
Du/nQiM/Fz1JPGNRVe/HYZDwXrdkwvLVtVdFZEG/H7vQZ6TBYE6R9HXJLEBi8yjpWsgFwnZqRc
Sd9MT2dnUAAwKgAAAAAAD0Mw10LgAAA09Eca4C/4D4BVZKvXQEsU/dJ8m3UI/mgtOrEkq/nWKI
w97tKFIeBvzoHoICj44qaZUeb4NB8doAU2qNi9xdkNRZPGb5MrwpQC0eNCIAJI9osdzeiGSqP1YH
QBjsJXAZCR0mf020k/6Bq1kX8cpHXl1pWx1jw7bT/uAsWrudgDhdLJcJgpeW0iqAI05/Ud/zQVPi
Mon7eBYMEhq+9WFchdrVv4tNJw1GEqVEq01REp8BGc/B3jt8/f/tcEyH6ilnd0I18MEK2sqR4u7R
f7HFBPUR80MCD7kN0hpfhvEyC0jJYKZQkoGZxg09Ukhj/K4mNHgblkhziM9x1N3qYYGRtyui3s02
whAckY09q0NvwW0WwVIXwCxcem6Ny20k8h92eav4x9bTjy150bmwxEAiVZGkxetJilrkCLa8LVGn
3qgy/HuvsQ/sLZX7AWcuD966g25EonchqSll9LA+Yw7YpwnWMrzREjK/XXyz72i1TQJFp2CE/Ehsm
o5m6GG41ZAUJHYV7B9toyk9nZ1MAAICsAAAAAAA9DMNTi8AAACFH55tAv+A+C+xlzi0HnryRq2z
h4cU9pNiB/tToWmElthrtotjMh4vhQAF4tPu8X3hIc3T8DtT3U0YSxLIEUg8W9d7ecf3L0jGuqY
fy9tv0Px/zMrLhTtfZLEalrjv7NQAveq0C670UYCHBxDz0iaZaSNP2TLpGqvhm9pyt6WELn+6NNa
pIamwYWSyJ18/+slBsqB3g+AyfZyrmrN5WjwLyNNqy+/Fo1yes23KrneLLA2e3oVQFC+oyx9AX5K
848wLpIFaYmCyeC4AwsTK2bvNzYcmC4wq0Z4w6stjXZT1Eg+ymEI0t1LW87T00XI6+kxbGBqjHz
ntTnsHe4PJrH2AYhbJQ83Va0bBs1cRS/wDX8GEmrFM0X1ccHne+0Z8ra17ShPhZEq7n7nGp3545p
PXEqqB7o8LRDBwUaLoHkPeSD7jvABCa6jxwK5TKgmBsrrjHHEmfhNnf0Dd73+foGRIXiWtL/ANda
fydpN1G+qX0qd+SJQK9qzLFz1rzX4vE3b0m99oRPZ2dTAABAsAAAAAAPQZDU4wAAAAWEVYoAL/
gPgclU8IZfb9L0si0mlagQ0LPtQivc703uayhgGcMDI8aDQv02hKrZaWu5JryT5jj8UmD6LgRqF
3SmylU79p8YuCFi0aM1BkryCkViQkRdea4lvKooCBGgMrrsbIxNCFXJrT7rF9BBTmCQf76MiARQ
nLaWa85dttTz3eqeCNKJUxhnKajD2jwQc5KcZs2YNsURc0Ev9X3/tDEcLi49wpRgPvuJ4diUcNqy
/T+kBk+9anEFFJiHcvk5gTG6YuoR+KfmJL9CP9Jjg/tQrm0UjhjTAm7LJL+9hkGHCAJZ391kMlia
9nyzILFo4gLPiR2a8rXLC15JJ3mshB4Vh0qX4j4fu2fEc/lvatJu8BL/0GKvaIoF2tjWYApcy1QX
qj4NNEW9hb0SulUkZrdfpn3sU7QKkHiq2VfnqrP+4Mg5s3vKjq0PYxBKjt4jWy7wAduT8yqwWveN
JaRgYRqWxH9qKHYF2wx2WIoT9MjMtJfN8d53vQ5gx4xPaMlEzIS8FacJT2dnUwAAALQAAAAAAD0
Mw10MQAAAM3WmMQC/4D4UmQsHY59vUA72BvbU7x0Kd0GyaHAK2H9qR0N7P0mXhu6+wcWHA05sEv

+0kgZlCwEoobmJksH+D3PHkhx5JZe1jg2808Ti5mwHGCaRW2M00tqi51C0Wnl0WgyXbQCKoMLcQ
adS00K4qeT1Q03opTt0zL5VsYgri83a2fLe7FhmmCx5C+XLPnTF4oRyHNwVZH0V8FdbvWerKr+AK
jaDJFleFFgJnUa1ER6GSY/LE7G7gNH05/NKNbz/oo1ocxECpq2UuWqFQA/Z5AM9MzutuY0I0BciD
gse0BAvPTR1DKN4ahLhMY8KGLzqNHZxgyhU/ieDA0aCrMF9cQkUsg+cCki/ldhraTr6cpFmS2E+C
Iryaw+FLGSTNxrcgUikQu0R0cXBxvT7bLnm5sPqbZHUuzn0RFy0y/GJhmyfratk6Ra0PNg46z2kY
XKqbTr0ow0a6+kl7pCpsL094xEGYUS0sNhNqE8DroTL9MhT2s6CZ7Ngis17ggtFtzt6dL1+6U9n
Z1MAAMC3AAAAAAA9DMNTjIAAABU2onBAv+A+H4Y+AH50YMjfPjzoE+7LgV49XwdAmzW1/APUQJv
/Ui8/t3rRlNHwbdSWpDb96lHV3iWvushn0ozav7CDoJfsEGkxsqvNnr72RJ1f0poQgDR36rk8XZ
TDKRL38NFqzLaEpZWf36W9sKzGtKMA481eVjNmof0l02loh0LhXFaGo5cv26RjzGd3WbkxxFjr/0
QbWkdaheXHy1W16GBF7R0lrAx49QaDsZ9UmegWKx0UuQugQpuWyJcsBM4Co0f1r/w0Jl5KT60ZFF
tnqXAA9gIzNL3JxnRQX7yqNtiZQtq+aYkmYdEGmdhSLATTwuE7dEUhHc77mq+HDUZ7C7rlcUwlb1
srBc1QhUplVUhrY8sIQ0vtSf0/FoD6zWvE5KPPIrFwkweZEFohTHn/XGNRfQ3tijhRteiK9dM/Bv
aZhbzZMrvUUHMBzm0w0MC/ejzFeCChYlyt8Un+HsrpwrYB8bDKGs84FzpkIxPvg9LWhrVej8SX
cBgUllt7qj0IM1JPZ2dTAAcAuWAAAAAAPQzDU4zAAAAWGXn2wL/gPhR5IuVcA4QHWLWPwiBhgZT
5zIQuqYjLZdbuSEXNo8hia7z8T/tfwRrduEh0Xx09K7cECJ0DxMts9Rwet4Hxj/QDwLwb6N0tvu
5FZ+7XiQHMGs8qsTmvZJvfYEd7h0ibqQ50Nbg0pMVprH3Att/4lru411kE49EdeVA9KgInllnZ05
0ziM26YnqEYtcapIwDLE1rAaDjSmNJqdU058Q8c7tmDVGBCRJ0hMoCNnYA++3tIPw7G/Uzi6FdnY
kWPNGPDseK46bFjPACK5xBcl5n5ZlsjwFEGiI6D6d84To8Svmft1IMMciB6mq2wg2ondC17NrHG2
W4BeyTSYY20zyur6hHx7vaL7sj2X1YlRCDcWYNA4D1bpFPJncdxsohln9ww0LKcB/Qwr+lyio6GF
diWM/V4NDxXrW8zo0h6SHigKsfocUx6HACwFHXVhL6vSY7hFg+ZyxM/8QWslzzEFSNp0amXRQaE3
Xb6QSDo/sjBfChe1C/KVwSwNMA7eWkpHT2dnUwAAQL8AAAAAAD0Mw10NAAAAJlNDdsC/4D4057M
JDJ94ILH0nz+FftWpvXqHLKeGx2Lz/q4Ua3Z02FSPakm6oMPp7Vz368L0vk7/VrQWcA/uYapABjs
GWK+gsDL82FMMxZM+XXo/0XNiqlKKhVWAdUKEmMjKA16HQZoRJCbcl/5vGkdf3BjPSVKSpLaZWFs
RHwbzRtKQDQx8GQpH6KN1v+P3LXXMp8IK5/UQqvV6HfA03QxNRiua1Z74wZM3hJybRLsCaeelU0
5AjLJEa4HAiJ8ugdwrLMVi7Wk7WjIgi1TnzWxtKLU7rIZYN0rjBoVI5tJxnRBKkcWDknk3xR0Y5V
bGAyU8ikKSpAcFV1rbR2LaafQJ1kmeJd9sc0FFv2b1sRgtqHiaf3aaqPZH2l1+TkF8+tzLRKxNrP
5PBeHvY3oJB7RPG4axkMpyvBZRzHNRlXu8j0rxftQ5rnnv/mJehJiyZm4ijnFR3h70hJabz34CJ3
FgKswzGC2PWSi2SwNyfvR9c6f/OpSbTqvuZ5bHm2Y0s0u5y009nZ1MAAADAAAAAAA9DMNTjUA
AADrqUrWAv+A+DkhsQjX6UZrYgJCFWePI0KoQJi4rhNmg4zNgns0eBkih7XqSrZmRgDL9+Fy0gm
Gue7qx2UXnaPlImN73diTabY+h2W4FIGPAyzSa0I3k00grkC001li/jFmfp6FhjS92L14W3cIna
yEu4bSHxn+l/90bngC/FrDsu90qXaYgi0nq7hSvWkCjeySXvLC8yw+GJs5JnizIc4yutRSeL/Xd
jxEwpUs+qVvJ9Rj4SwF8Vgtr0BBRn4V7IhWFNuyPh1lWf0dceXDoXFkvj8w3etcuUP7McVXLanP
opMLHtT0173rthWQH1QF0pXBUFXEHeJbfhPrsn8G0bFA40aQxsGcXjXG6mchqx+sUd3XfjRn3SNe
mkgL5AtUJXNS7Q4/quIsXLi7gj2yScmpSAwBR4D6XnqT3EIA1KkkiMiK//VJjbupx395NZUqvIX
ba5Cs71g44ed0j3UAU7Ji/H7SCmEsKZ0Skr2UgHxjXR9V0CA7QmiCxx2zRXMRmFRXBVPZ2dTADA
xgAAAAAAPQzDU42AAAA9gM31gL/gPgwlTnhkpkEhZtGAtmMKwEhXgQfZpibW6zAnBnmvlny42u/
IExAE4S3yCZsHLIbotLH5H5aSiGiSrVNzV92Ph926DPU0YogpCfu3gNzfME2cTiXWwZupoJ0HQ5q
MQLJTIyCDUXCb1PF1GU0B7UeSIpgM1fA9QwWkhcZU6f+UlfFoxz2Wi8eRanhpsSGbP5xEWYr1TFS
Ww7a0+XuKf7m+V5TFNW/KCq/DNv0H0n+0Q5Rnq0IFyLMCJ4i8tf9qaWzRtvdVcxMPXLAHQr1XmRi
peZF8WZgRc0ErkZFFUGC9FaU/xnVVUdtuxPCxhp/570ANQFIG15D2wz2aUWWJD/1Rrq3jPQyZpUk
ABbN160H5sQHqZG3IiUJKyoJHV0srn7pRwcXAnIwHgo8o03UV35/+hEeUyRH0xEvpdUd1bdbaBuL
wUzsJOY7FPfqdFowlo0SQqv0rC37qzkyJveoH4Whp0B0S4Wa9/BPLgvkmsz4eyX+L/AFwldKXD9Q
e+0Z01/GT2dnUwAAgMoAAAAAAD0Mw10NwAAALHP3AUC/4D41qz9sZer3JwxY4GUD7dp4TaoPJkL
8h2z913/Y1khKVpScvRu+TtuHJxq5jyaJvJIS3DL2D2t+hLBK5JXpP58DJh81KvWJjksRHoBfVzL
kxcqxrBUiA5Zax0Zm/jXMNl05RM2gNo6LgUBy0C3clU9NoevTr4cJrYCWHDH/tnnFRD/LYAowImT
PJyGh/wdlpMBs8ViIezrAARy7GwrWhldvLlaiZ5WIljmlp/vZxsFHiG1qKMAiLwo0AHgnWRQ9ScM
7v3Rk6usvWJJoylpuxIo5c3M/Mf0N1ZGTCGbCzo05R/FALC+NR0a6fdiGobM5BhWL6EkjAWJ7i8l
nib4jzU//07/+WTU7jrm8p8N9bMwxzPD9yuhNMbsoP6mQfqJfDjN8YheZQx4bEdVNem4ZMIHXk0i
Ju9d9GWUZ/7oPL+t5HJpXKZ4b5FQiL4rpWh6ieNaPG3Gor3ygyuClZkBvzSFyD9LdEED0cnr6U11
+P9IKvahQLNSTeMoMWDH3ErC+09nZ1MAAED0AAAAAAA9DMNTjgAAAD0RRohAv+A+AfwWmeCSLNN
ra62b1Izgek19xQLQaSqRnHxCsJTk2Hg6muyZ0h+askuZ0VPfY90C9gi1RV7xQS0Eba9uNNY9huf
4Hs2I1z8qCqpMF4tEjh/i94H2XmGX8awA/xyfXlSumw3gVsVY8PnnhqueaWGVsFfUVDYzbiTz10Y
G4bf9YCARYcfQHf4b7vAs4eJYZZ5NURcXdefmL3oZn3urG0/IIDVaMcAr0W9lCdR10rJOCP+UCxo
0VvXRtBXekMUGQ/hlt5B62jFhdRrI6W85+zQKcveazSUC3P5+Pn8ZqfHuZAoU7vfdS6qqDKftetA
coq9ncH1xn/RJrweLoteHP7AZL+M60w00onkevScYRgizNQFkvAoIZhjprJaVh6/tPQTju7jTCXh
1519nshybkNizGqZbFJ0qJkyQjh+uMbipDqU/PakLmxFyU3x0hzvyn3tciPiTc3+UJcjgE0U6kF8

GBjfsWpCqfnL4KZSCBfpxxF+Jjv9Cvww4zEeqLVR/FlPZ2dTAAAA0gAAAAAAPQzDU45AAAAOu/V
xQL/gPjXS5AU6DRbz5cvYsfoSLY6x+sJ9/m871hvgyMqWerbt2WuLHJHC8ZBDkfjfd5nTM+804c3
AEo18hJa8UgNyhpDMb9Y3/eFLY3HQ7o5N+oH0mehvrALgsPWWEi0C71DiXx+dLnISy+oasSzF8hL
hgNn9RR9j14mNifuiNV728W8I/zDhGTd6Lzhys5J1mikZ/Y62d/bxS7ayVBvyCGGAMdEo8x0hip6
47xpjc66/ZQ6IGfqc3msQy4aH2eLYtBxUdISisVa5GbL4Y8/9CDWWhdZTBL4D/2jCIEN+Gh1/GH
07EHqPdE4fWouetPDvONsZwfBDrBE7WdimW3PKjYZ7lNWjKRd92QRfcbBZiWw60zlotv6pDGh5X
4cUoBi8PWbpujKxsHSMi5jxFkow8zkXpTHNZMCZux7Sot8Qzj948H/ijKC02IsaswcE4RzEshD2N
w06pNV+cvgbpgGkZozxiWgkSu0UU0j657wIrujz7aN3ss6C7RPHxnWG08irWT2dnUAAwNUAAAAA
AAD0Mw100gAAAIfmzjAC/4D4P8Dr4eNcZiU/pMp3TSG/6bendK48N1mI9TUxvDcJn0S8vGy49ijz
IZRcGcv2VJSBRgVi2lZfVlu7vCvBZXCRFsJj+tgf9M1vTNQc/PfIH3DkVX85BngrBoJV/JKhBmkz
Ea02NhP7An0w9MhTyZfoW8rRT7YKjDnm68qBrjf2X1aIc6GpZ1MB3yAogJv7dE7rYkeoKJHPqbH
h0f8MwLM8XY7QuBRo3S8XNtZMb5xVq0dzeb1RRFNP20w3qoh9UDP/84GkZQAT8WwUEfF1PJiUIJ
weI/VbCFwG0c/LUTBw06NhV87INvXN+ToTmSi8q+C1r0wH9DPVynbiXYORA7gTXMnyfctd+8KTP
JuF0TXg2FRCoZWUIaGh1jhAGi5FIYYX5vC5+SDjJLC0HyPFJyoUePcZxbCam78F78ZL5le9380C
Yy7LHJSVsSp2Y4Xi0Z0VzWzk0qJGxsHauj8/X2o6ZwyJvDJYanLL7VPkRNRjvNZCAB4VmtPZSWGY
Kk9nZ1MAAIDZAAAAAA9DMNTjsAAADiy+eAv+A+FER3yS0v57m0Co7hv00+vbgJ4yDBW6qqaWU
mrpWe6M35xpSjhgZ9184jwz3RqsSwp6NwjGgebCfrum5F3XjSML1Zje4UM+/BV5KKPQDlog/IcU3
Z0o0xejYbjoFSpZCln2+P0+WESb/SZanDkLzmKxURz7Ztb88eoS3au6M8s1qM0SyN8JC7VeKhVCz
bAWQM6IN0up0XqYvcNwoesQynHyvHJbqqeUcQPYYQo3octgqhyT2x1GMA8137kYbDjip55zWHTYPA
m2U+6pQIBG+4kiHIE2Tr8Nr5Lp91ALFWEmRygGYC0kY6nh5duIiKF7kPeCId19aWiZLyZ4bFb4cK
7mW6Uhz0+dQa7RwFuS7c+daXyh3VbKyqioihRbXE2d0XAPCI2G496383EKIow8x0npBYG8Dxyw7z
Jes3jwmLaEnZBXXR9TyGfDAiSyyQ5qXMr21qIz3nCwfdS5S7F7ICWDxV++ZLE2tuSV9KEUBIsRc
941GYKc6R8ifz3/042hPZ2dTAAABA3QAAAAAAPQzDU48AAAAA5Dj1QL/gPhRFypR5AtjB/EzYmH6
eD58aLbLExB++mJWC+PN4wDdVK33AMSn/ntmWB1Szou860c1zVNAC9Cc7tWBSCZDdqdJnqr/BcG+
NjYyiw10duH+vaE2NPHU+cs949TZan02fiWWZ3bdgpBr3iRtlxaGXGNEeEXft4mq+df2fmck0K0y
TIH6RMEe+b6A00yldtKeTdV02V/MFXeFdulxqo7r4YQibt0/hR/lgEour5+NqvMC05b1szQta/Hv
GqY/pcMc6jRymLLl7CbleHUT+7LSiyjXWgLv9F0YY/JC0vS+q6kXK0iJgkvCcXg4DhV24ZcMBKo
hqaIhCbxp4kC1eZc1IJBfQl1CyNE0RzrZYavSgvzrn9nlv1hBmXD0Z8mS9X+ymdHNGvTZSItNkWN
Bf2DircwXR9ahZkpLk/gJu5/Xjmhuu5G41lPnuc9fbdUQF880G0PqDvJccC6tA9AYuWQ5Pl13i9I
10xj6h99W0QSFx3UqkZsn6YvH1cNk67dBfC8T2dnUwAAA0EAAAAAAD0Mw10PQAAACH5bVIC/4D4
PZWQsfxy5i9+1VTSiyZdxl2hEJ23504hjtB31kvjh3wStvG0N3cZEBIqGpR1x1AbX3noPyTnh2Cz
06rE/f3wGutUsqLvsE8E8qIBV09b4vG4ienLineYhaoLEm+WyXudC9PfSDH9iiqjSIDhPZ82kKqp
3FBc4Cv5x958oglk7iknpA7eShE/GILHwz/vyqlsA0R7Yrmk08Q9vrrAd6GhIPp0w9IJadjq6Aqp
pTqKpktjBndcaqeSJqxIpBqeRaJyuoWNv1s0FZWh3AURceEozF2WHLqLgNMG/8Wg5QUORX++5grk
aFctV0qyTdxRYE0mhUmPRUhnZ0ynBcHVyc5cQQh9u8K0PAnZJYxNuCqUxuhDwDgHLl8bqdlgZh3d
n9W2dSjBAy6B/Cm37eE7JyjlvmoqxCKImZcayi0WmCeDEog39hmjS1uUwx2ilPlr/xHqS2BWY2MM
yv5XL0dTQFbB2Qz7WEU57oGdj4pbFk3/0W9JxUwqsFWEYw+i0p8NYU9nZ1MAAMDkAAAAAA9DMN
Tj4AAABmHoeNAv+A+D/h1TyVUmMaKHnNtHV6p9t0sLMWtdJMY7TBsoXw8C3UpC0oro45yhPRhHJW
8jDDshyr2RTlikNvg1eJU5FcpwNe8Fzskmq0vfLDFur20KL/6aIKxs96Z9ZwYIy0jhy9fd0zHaA5
phebnYUTDR45l00PpKcu1loeBcVCrDBnnDx0PMSTR/VMKus+xjNSXCjCC4inLga7smdX+MGdf6L0
HBi3aQPFPX4DcsF8nbQE9xX8HFIEIMj0iadJ7dax1twDhFImheMUSug0555Ppp0mrASggJH1U00d
A+rzMXngCT2h1nSB3V6HzN6sdNMSBtlnlmiPbSkt+H5WUagSbG8kbl9BqXfWgrxvs0SLN+jUVSpK
JTjCF6B4MSzRCKZGvI6iLJ35yiaB1rHSRB8FKpadzmaV+0ss070QNAxgKzkYv1+7J1+rXIyPpiDD
fXY0IKLSN00gs1pjzse3Im5xy42HxpLu2MapJD25YUvuxUKreBkhUjDyxq+JgfMda41/Z/dPZ2dT
AACA6AAAAAAPQzDU4/AAAAPQbnPAL/gPhENYWGJqvADfuoUkvDUFFG07lA1szFORF8K4GmUfnw
/xKMR1Tx6/6Mgj396hjmjeXJuFkHIplZVvdi3N4Gyk2RIbMJgl1PdQ5nIxHCuadPKN+226ZZh22z
62uLPENj0hEtyiJicwfkPoetm3kXvQpG6NmicWP60gm0UImzVxSqIFBIAuk9ozRYp61B2c84IjSz
8nM+h77x9Zt1EpK7x04/D6buoFKvPQRNZb0ydhdiSrQPHvKfzqes+rN69cV8c6bNm80TcstY3Ube
1ja000doD5UZBN+Zb2drw+hKZ8dHjLPr0nHacJoBWSZVM6i8nPNjPJjSagexdttkB/xVXgFVSRL1
WyzB3IcoGknrla+5Irc1b+Nwysf61uY4Y4iVANmKen3dcN8oZddFS8wI88BsFBBw9/vSCXgjvmUt
fS3o9qW26UuzveLUBBGjeUfn8JXhuJyz/IX+Ha1TRbhCUM01gzI1dAwNj/YyHvma7ReAdk8wQRK
EwTatE+MDZVzT2dnUwAAQWAAAAAAD0Mw10QAAAAAhmdIC/4D4UxGwMQ1lnu2MXM3WiIhqnwHi
h/nf6X4E1cVCUeurBGkxBHRYip/LFfruYU00FE5X/fI5czB1MYt8zYFaJsitIc4JnLSI0b7xIrIx
4NH31TaoBdJWQRTJrz6I7zIygDgiLD5CdElwtjt0RVuAutT56itdu6ou5bQr/hpAmTk+ad+98nzI
Y2Cw46Bnmk1Fn7elkTVoxynSSWw31kwc3F3lRmYevT63MQVmRmi7DZCKoqHD30GlVTRD3vTgNqp
IA8c6VN5J+75f3ZqWiPugqd/0ipG1wos6ABcqudc5MaS4IxhbH6EJ8eSdX5F7tRBFg56rxBbZbE/

8LizXPQpCD6cwlueVWGg1MB7C8wRSvfc+5mR1V6ZnB6QCe00VUqusN8n6FNbXdnmDggkaeIlcBNA
8NL2zx4TkhBHLH6dZGIQ0gicGDxwfn7o02wNXRRQ00kKykgk2TMTLFVyheDGFxQxXj jnk+S1iesvF
mCXnePYAW9k6zdpMTAS7kP5o1xXeX09nZ1MAAADwAAAAAA9DMNTkEAAAABJHitaAv+A+DufKvMl
dL3RYUaRWZ0qSPtM20Ao2HYr5CrDwiopgUyY8iR8XL3IDLKhd/imhPDlKqAZGVfbC9RVMm5XVaZ
XTgobGwE+v+NKChe4x0Tgam16vzdNE6itPA46KF/kyzyj1lLP0FF0vvp2s9LocgMrW722yavJYSL
KwDPV6Y9GFWR0IntcUV54DVh07QjiWBNJpCiSP6zz3AJ/i/t7s4Q2CMC8AN30Vb9gdzhmXdGR5HX
ojuFXgP4o87NbAiYlk2EH6mLluQmue/El76gYZ1F5VT9QdakNY+TWjdFS514LYr0IoSeauNeoo4a
UGkSyVMTXx0w2/mzyELjY5NV3ab2MbW6JLLoW6tFpXNVSZqNTbmTofE6zz2HpvTeIme54/YWy6Xo
eWd3yFHPhGbiQWM6C4NVRQRsy7nmHm0x22enjFfz6khyBTupjGnT5DGoVF/dsbRZdcSsw3PkZsq
ciuRUh50YXYvhcFH3IVmPSd5Ly/TBdjERKkoVP67vzPFYGPpZ2dTAADA8wAAAAAAPQZDU5CAAAA
Ee7gnAL/gPhPppHNJ0B+cPfp+oplXhQk0kuJLVkQ0K91ZISWYgZz1lMHT1e2o59j6t5UzC1Vw6x8
xsPrAUss6yaBvSurLmT2SCPwMBtdeSXV5RoEUwWeZLCMfBBPlwphCPL4tuPGcrsTcCpg7RTsmyeJ
cMGYJWza50+deSQLhoQ8Rb09uP15P78gvaCBVG+qbs1n3tQNbMf4v5qhxsFQGWWRqilTts2a/BG3
tN+IafnBwAzf0U6PPHYMEDrZ7bCKr+jFALkBNYRZwtVW4Mu/xR4VvIHT+B0sPmSQmTnQk9BzSyyC
/l3r2Xf0N0sH0BBTophYAfVALZX4kDKm1mwyrAIntQodPP2Zk6AFNhRwMckgw1tNxrEMx52Ws8aP
ghVHWUKsIPSW/BhRq6yIt2tJSqBNmBS7cFDs3Nglz3hFkaAEaeUCV+iAwpRexR8+neJ/ianCZYX
ZiVvzd2aY9I0XFK8VcSx93fuEngHYPGXiyC7nfrULE+9B9HwUij0hJFETF1JKPZot2dnUwAAGPcA
AAAAAAD0Mw10QwAAAHpQ+aEC/4D4P10XgZCm97g5q8r7VGFnteN/wMqacIjKLABy+CjUEcUbBnBV
IR7BFFgm7BoUmpqX0gbaNT92anHi4EJT7eZRJsksmT9s052Hv2Mqxj0JWr0TqdWZV0wQXpCNVfn
J4mb3ixywQU41KVRw0DSciIZtCHz9+lofIZ0nW7sYshj1msT6n032Q5BgCY5utI+0sH3kz0+Tz8F
rMMndkk0UWxt0jf7kdA8X3wJP8Q4Mrx+0AsybTVS0dBtHSjBCsQkHvsf6qug0Q1mzCxUJ4dGUKIa
ZQN4IDIoblvFbKaBrhWYD7ZCUnfthhLi6VFcqsPBEzHKCYhxouNHcod8X79XcGf5RQcaQKtM0AIu
6rCq7RzImw+K01RBddKZVlh0N4gc1qAcrPUqp52iLvc3pReY74/sYjy9DYXfhFr3qrBfFkK4pj/
9DzE8HfY7ih8w3Ba+m0G2X/QChTdL/70ciMMjYtoJmS/tRXFT/cqfW0Bp0zEb8cgNoTCjCZm95zJ
dIpf+k9nZ1MAAED7AAAAAA9DMNTKQAAAAA5A2U5Av+A+DuULLSvJbzV7IiE3MLk27qfQCBly6Dg
0Mt35JG+9u4EicDc/4cExZl9BcZM0FeUiiEe4yT/w5DV0oWbvnsjs3u+X0TP6xtsh0ihyqyVuq2c
DNU7DlNKUaHo38fodHghGQs94/I/sG/0L+5KB3F3EMwJAFcninV+r/118fR0aH4DH8K2DeFchXRT
70trHHBUSNBRjt/BZFNL7+v2PSSUCvvPdnXgAGmZniD9frBVa51FIax4NQkHQ9FhetKg2ZzAeuzZ
7LDNGoN6x61Y0hCWwf597tRMIK1tUiCxn1uWEAe2yBjWpdgg1em9gbc7IaarDZS9B3ynQGmzlBA
Kp5dD6CUvHuPMO+lQmWEijshKwthU5VtGAAzpkcSDF/SEqvmkA2WLehgbBTqnEndv5zT6oSwVmJJ
QByAIKcSQLMj8j5xrVXA0UtL5YtorxehSLF1IIX21ST9g2mRx/icRme/hEdSVNa8yzhmRFDS7h2P
Xu6nXxXiKk02kw9zVn7cgQBPZ2dTAAAA/wAAAAAAPQZDU5FAAAA+eAs5QL/gPhQHjzjZ2L2SAak
mqbw1xlHesBC48gX1XWAKKsso4I4K5L26zY3TL+9YKxgTBFbFNeJt9omEnesv/VsvHrx0LswJWU
sJEq0LNgpKrdUCMvt90YSVkwXhNGIjPMI00UnoQpLG3d4rpGLjCiCbKiOEapRkbj/k4Lwi0KJcCZ
Q9R6+D0EwvGy+y3grBjiLBM3RTLjsonjuBYoC0J8NrCHXeZrcfiAzW3ZMQXv0a6xtUBGm2qr093E
CTh3tXALC6qfnq/5Q2Rz6JUcNfcMxdR+HJo1pLnxDtdqahEl6UUYh+eSfcs7cV482QyD5u1jVqUy
97ad1KT8EKpWcxg9hC+i3ohdG1bnl6ELUcm3908XA0bRnNuixailpWPTejP4R9WfV0heo8W3xfFd
ejcK13Y2CQofAqiIMaRG+iVHKexW9ekN9otn+sp10nv5V1FPONbGJyx58xTJFiuvPp1R3WCktngd
4gif0stzLW7ierBy4XRVWqBiB+hKJmNkCpQvJsSKT2dnUwAAwAIBAAAAAAD0Mw10RgAADaXmwAC
/4D4QLxly9rf9ibILjVTOrJ5PhNk0AmTDr4SVmU93f/oBJ2099dbnx+28S3a0SczkZH0/1ZkVwZe
wiLdGfP1g3m030PdSeBJqHwPTqsr4xuW06qkFYAth04St9N/lJqm1ftV8P7zh6v5PjwbCjUnMJb
2obUfrLCNigyBPCm11P1mMCms21cC/nmmBMRl5UwfRVC8jA90QHs9cjxtbBrwT7uq00/pNaMd6fu
RB+NwQAxrm6U/nN5etpUXW4FX48euN6grr2IUl6W9SL0C3XxLOBXqsbHy7sTwx4e2zUlFxx0TBlJ
Ev43w/jB5TnuFLXtmcGU6xUXLIkk06PfRLdCVyz5IR+vQl7B1+DDdzf48njdbm3nFyakw7/F08SY
G5HPZZm6Q7KlTKw02XIEqnmxDI46F5zY0WneQnQPffHYETr08wrXcbVrjUlyZmZu+0r44vgLxhAe
2wl8XspB+WiHpH6BcFtHEe5k26D4fiWPCfssAQ8AzS+ATlcn3VLZ9txU6E9nZ1MAAIAQAIAAAAAA
9DMNTKcAAAAoGJerAv+A+DtwlmxJtxh7ISjN9WBFndsbat/I8En7NaP0C+Q/54P6U+UoWU988uCJ
dT0BJJ8IE76BzLRc81986bXpcQd6fyo05J2An6u2/a63bTbmUvxaRza8Rnk3qIGbrHkpcZ5adhX
cw74vg8cF0HBbHuvKGFUEbIOA7EPfUqSv0nia7ghdkYxBoX1xXqKy0ivxz1r6801l0n8u+6xhZ6L
VxGXLvp843K6GPm/0Tpo34pPrib/LR1zAPW9K1GDqNfZ3ZLSmeb+QwCJhPIMAa9cp98yc102qWb7
+1cpocauEg2a2aK7ciqhTzr4+0EE6TZjpkBGLV6YRVMVNoxxhsw6K6Mgh3HLIC4WZt+boyuoU5Rd
x83/pPTHvtm/Cga8VmYl3lfZMBzok8eIBNJUVVjfMHPM7P23kPGh8fYy7aUSBpVzWeMrboY9gH8i
5gA4lNUnd72NKJYx645a0ZXWZmuFPGpaFay405v4DUrpAMmmrPxyT18kea+jBoXkhFMNLVf8M2RP
Z2dTAAABACgEAAAAAAPQZDU5IAAAAgqFgeAL/gPhQ05oEXS7nd5UM+2xa0UNwBtVu404Voq3mmWD8
KdZGAT30vSTqeLaegYvQhUCBzagPT1/1SF9mefvNNV1G0S41fr/AFV+HVUCk1d7FT2RqCi/bbsxF
Flu0X0R7UaDHTAjjj7y2RED7C30mrXEWHiXSUQYmosBJ8bJpc6qCa/wFkoUjT/RT/oobEZ7hA0oz

RvHF2VKpv9reZgCdr5KVnNm10ef2oPey40jwhAIYkyq1Yz+W/s3quyjsxz45aV69CMENZ7szRV/6k
N+DG5H/2wnldYuL2+GIWPo9MuAutDCSBmSNZ2CfffC+YZv5A0npPZQ0wgUaqEnk5Pj6rl+AiKlhl
qV3yKPFfgrqC57sVI/c4NosywPwGeY94MpYAfJ7rF0CaDGAHKYJ0dHVdRAQxvo926HjAxTiCQ2na
C04pfrkTRGXWE4SLczgi2oI9+dT2SwBiMwvjNmonj1Z4mzFNP8cSSN0m/FakRCWRp42cyEBH8nDE
UuiNspbdgSAJvT96