

```
{
  "cells": [
    {
      "cell_type": "code",
      "execution_count": 1,
      "id": "48edc746",
      "metadata": {},
      "outputs": [],
      "source": [
        "import pandas as pd\n",
        "import numpy as np\n",
        "import matplotlib.pyplot as plt\n",
        "import seaborn as sns\n",
        "from sklearn.linear_model import LinearRegression\n",
        "from sklearn.model_selection import train_test_split\n",
        "from sklearn.linear_model import LogisticRegression"
      ]
    },
    {
      "cell_type": "code",
      "execution_count": 2,
      "id": "86378414",
      "metadata": {},
      "outputs": [],
      "source": [
        "data_file=pd.read_csv(\"sales data file.csv\")"
      ]
    },
    {
      "cell_type": "code",
      "execution_count": 4,
```

```

"id": "45764158",
"metadata": {},
"outputs": [
{
  "data": {
    "text/html": [
      "<div>\n",
      "<style scoped>\n",
      "  .dataframe tbody tr th:only-of-type {\n",
      "    vertical-align: middle;\n",
      "  }\n",
      "\n",
      "  .dataframe tbody tr th {\n",
      "    vertical-align: top;\n",
      "  }\n",
      "\n",
      "  .dataframe thead th {\n",
      "    text-align: right;\n",
      "  }\n",
      "</style>\n",
      "<table border=\"1\" class=\"dataframe\">\n",
      "  <thead>\n",
      "    <tr style=\"text-align: right;\">\n",
      "      <th></th>\n",
      "      <th>TV</th>\n",
      "      <th>Radio</th>\n",
      "      <th>Newspaper</th>\n",
      "      <th>Sales</th>\n",
      "    </tr>\n",
      "  </thead>\n",
      "  <tbody>\n
```

```
" <tr>\n",
" <th>0</th>\n",
" <td>230.1</td>\n",
" <td>37.8</td>\n",
" <td>69.2</td>\n",
" <td>22.1</td>\n",
" </tr>\n",
" <tr>\n",
" <th>1</th>\n",
" <td>44.5</td>\n",
" <td>39.3</td>\n",
" <td>45.1</td>\n",
" <td>10.4</td>\n",
" </tr>\n",
" <tr>\n",
" <th>2</th>\n",
" <td>17.2</td>\n",
" <td>45.9</td>\n",
" <td>69.3</td>\n",
" <td>12.0</td>\n",
" </tr>\n",
" <tr>\n",
" <th>3</th>\n",
" <td>151.5</td>\n",
" <td>41.3</td>\n",
" <td>58.5</td>\n",
" <td>16.5</td>\n",
" </tr>\n",
" <tr>\n",
" <th>4</th>\n",
" <td>180.8</td>\n",
```

" <td>10.8</td>\n",
" <td>58.4</td>\n",
" <td>17.9</td>\n",
" </tr>\n",
" <tr>\n",
" <th>5</th>\n",
" <td>8.7</td>\n",
" <td>48.9</td>\n",
" <td>75.0</td>\n",
" <td>7.2</td>\n",
" </tr>\n",
" <tr>\n",
" <th>6</th>\n",
" <td>57.5</td>\n",
" <td>32.8</td>\n",
" <td>23.5</td>\n",
" <td>11.8</td>\n",
" </tr>\n",
" <tr>\n",
" <th>7</th>\n",
" <td>120.2</td>\n",
" <td>19.6</td>\n",
" <td>11.6</td>\n",
" <td>13.2</td>\n",
" </tr>\n",
" <tr>\n",
" <th>8</th>\n",
" <td>8.6</td>\n",
" <td>2.1</td>\n",
" <td>1.0</td>\n",
" <td>4.8</td>\n",

```
" </tr>\n",
" <tr>\n",
"   <th>9</th>\n",
"   <td>199.8</td>\n",
"   <td>2.6</td>\n",
"   <td>21.2</td>\n",
"   <td>15.6</td>\n",
" </tr>\n",
" <tr>\n",
"   <th>10</th>\n",
"   <td>66.1</td>\n",
"   <td>5.8</td>\n",
"   <td>24.2</td>\n",
"   <td>12.6</td>\n",
" </tr>\n",
" <tr>\n",
"   <th>11</th>\n",
"   <td>214.7</td>\n",
"   <td>24.0</td>\n",
"   <td>4.0</td>\n",
"   <td>17.4</td>\n",
" </tr>\n",
" <tr>\n",
"   <th>12</th>\n",
"   <td>23.8</td>\n",
"   <td>35.1</td>\n",
"   <td>65.9</td>\n",
"   <td>9.2</td>\n",
" </tr>\n",
" <tr>\n",
"   <th>13</th>\n",
```

```

"    <td>97.5</td>\n",
"    <td>7.6</td>\n",
"    <td>7.2</td>\n",
"    <td>13.7</td>\n",
"  </tr>\n",
" <tr>\n",
"   <th>14</th>\n",
"   <td>204.1</td>\n",
"   <td>32.9</td>\n",
"   <td>46.0</td>\n",
"   <td>19.0</td>\n",
" </tr>\n",
" </tbody>\n",
"</table>\n",
"</div>"
],
"text/plain": [
"    TV Radio Newspaper Sales\n",
"0 230.1 37.8   69.2 22.1\n",
"1 44.5 39.3   45.1 10.4\n",
"2 17.2 45.9   69.3 12.0\n",
"3 151.5 41.3   58.5 16.5\n",
"4 180.8 10.8   58.4 17.9\n",
"5  8.7 48.9   75.0  7.2\n",
"6 57.5 32.8   23.5 11.8\n",
"7 120.2 19.6   11.6 13.2\n",
"8  8.6  2.1    1.0  4.8\n",
"9 199.8  2.6   21.2 15.6\n",
"10 66.1  5.8   24.2 12.6\n",
"11 214.7 24.0    4.0 17.4\n",
"12 23.8 35.1   65.9  9.2\n",

```

```
"13 97.5 7.6 7.2 13.7\n",
"14 204.1 32.9 46.0 19.0"
]
},
"execution_count": 4,
"metadata": {},
"output_type": "execute_result"
}
],
"source": [
"data_file.head(15)"
]
},
{
"cell_type": "code",
"execution_count": 5,
"id": "057f3758",
"metadata": {},
"outputs": [
{
"data": {
"text/plain": [
"(200, 4)"
]
},
"execution_count": 5,
"metadata": {},
"output_type": "execute_result"
}
],
"source": [
```

```

"data_file.shape"
]
},
{
"cell_type": "code",
"execution_count": 13,
"id": "ed63f3d1",
"metadata": {},
"outputs": [
{
"data": {
"text/html": [
"<div>\n",
"<style scoped>\n",
"  .dataframe tbody tr th:only-of-type {\n",
"    vertical-align: middle;\n",
"  }\n",
"\n",
"  .dataframe tbody tr th {\n",
"    vertical-align: top;\n",
"  }\n",
"\n",
"  .dataframe thead th {\n",
"    text-align: right;\n",
"  }\n",
"</style>\n",
"<table border=\\\"1\\\" class=\\\"dataframe\\\">\n",
" <thead>\n",
" <tr style=\\\"text-align: right;\\\">\n",
" <th></th>\n",
" <th>TV</th>\n",

```



```
"    <th>Radio</th>\n",
"    <th>Newspaper</th>\n",
"    <th>Sales</th>\n",
"  </tr>\n",
" </thead>\n",
" <tbody>\n",
"   <tr>\n",
"     <th>count</th>\n",
"     <td>200.000000</td>\n",
"     <td>200.000000</td>\n",
"     <td>200.000000</td>\n",
"     <td>200.000000</td>\n",
"   </tr>\n",
"   <tr>\n",
"     <th>mean</th>\n",
"     <td>147.042500</td>\n",
"     <td>23.264000</td>\n",
"     <td>30.554000</td>\n",
"     <td>15.130500</td>\n",
"   </tr>\n",
"   <tr>\n",
"     <th>std</th>\n",
"     <td>85.854236</td>\n",
"     <td>14.846809</td>\n",
"     <td>21.778621</td>\n",
"     <td>5.283892</td>\n",
"   </tr>\n",
"   <tr>\n",
"     <th>min</th>\n",
"     <td>0.700000</td>\n",
"     <td>0.000000</td>
```

```
"    <td>0.300000</td>\n",
"    <td>1.600000</td>\n",
"  </tr>\n",
"  <tr>\n",
"    <th>25%</th>\n",
"    <td>74.375000</td>\n",
"    <td>9.975000</td>\n",
"    <td>12.750000</td>\n",
"    <td>11.000000</td>\n",
"  </tr>\n",
"  <tr>\n",
"    <th>50%</th>\n",
"    <td>149.750000</td>\n",
"    <td>22.900000</td>\n",
"    <td>25.750000</td>\n",
"    <td>16.000000</td>\n",
"  </tr>\n",
"  <tr>\n",
"    <th>75%</th>\n",
"    <td>218.825000</td>\n",
"    <td>36.525000</td>\n",
"    <td>45.100000</td>\n",
"    <td>19.050000</td>\n",
"  </tr>\n",
"  <tr>\n",
"    <th>max</th>\n",
"    <td>296.400000</td>\n",
"    <td>49.600000</td>\n",
"    <td>114.000000</td>\n",
"    <td>27.000000</td>\n",
"  </tr>\n",
```

```

" </tbody>\n",
"</table>\n",
"</div>"
],
"text/plain": [
"      TV      Radio  Newspaper    Sales\n",
"count 200.000000 200.000000 200.000000 200.000000\n",
"mean 147.042500 23.264000 30.554000 15.130500\n",
"std 85.854236 14.846809 21.778621 5.283892\n",
"min 0.700000 0.000000 0.300000 1.600000\n",
"25% 74.375000 9.975000 12.750000 11.000000\n",
"50% 149.750000 22.900000 25.750000 16.000000\n",
"75% 218.825000 36.525000 45.100000 19.050000\n",
"max 296.400000 49.600000 114.000000 27.000000"
]
},
"execution_count": 13,
"metadata": {},
"output_type": "execute_result"
}
],
"source": [
"data_file.describe()"
]
},
{
"cell_type": "code",
"execution_count": 14,
"id": "d590f7c8",
"metadata": {},
"outputs": [

```

```

{
  "data": {
    "text/plain": [
      "TV      0\n",
      "Radio   0\n",
      "Newspaper 0\n",
      "Sales   0\n",
      "dtype: int64"
    ]
  },
  "execution_count": 14,
  "metadata": {},
  "output_type": "execute_result"
}
],
"source": [
  "data_file.isnull().sum()"
]
},
{
  "cell_type": "code",
  "execution_count": 15,
  "id": "13f8f546",
  "metadata": {},
  "outputs": [],
  "source": [
    "sns.set()"
  ]
},
{
  "cell_type": "code",

```

```

"execution_count": 37,
"id": "05cbcfde",
"metadata": {},
"outputs": [
  {
    "data": {
      "text/plain": [
        "<AxesSubplot:>"
      ]
    },
    "execution_count": 37,
    "metadata": {},
    "output_type": "execute_result"
  },
  {
    "data": {
      "image/png":
        "iVBORw0KGgoAAAANSUhEUgAAAIAAAAGCAYAAACXJAxkAAAAOXRFWHRTb2Z0d2FyZQBhYXNlbnNpZ24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliLm9yZy/NK7nSAAAACXBIWXMAAA9hAAAPYQGoP6dpAAAhYEIEQVR4nO3deXDU9f3H8dd+k5AESDQIAaa2P86ASEIMh1AFMUVEB2fEczTQigeHDIYi5RK04ogUMGXUUAaBQDzDTQ3BGh04RZoonIEfLIGDCJdhWErmMCgSS/fz+cLKykkl2+ZJ3dvf5mMIUv
        pvd7yfvfrP7ZHfZb8A55wQAAGDAs14AAACIX4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAA
        AAM4QIAAAwQ4gAAAAzhAgAADCTaL0AS4FAQImJ0dViwaBTMOislwEginheQJ4XsF5GRLviv9xHSJpaSIKSli
        uEKmuDurYseP8ggKoE88L6OKLm3NfhYyrrkMklcHTvDc2699l31gvpU4ua5OmiQW95Hkbfjkb1InnBbiv
        Q5MW1yEiSf8u+0Z7/vO19TIA4lIv5NVXQ9VwcAAGIKIQIAAMwQlGAwAwAwAgAAzBAiAADADCECAA
        DMRPzPd48dO6aioiktXbtW3377rbp27arHHntMvXv3liSNGjVKH3/8cdh1+vbtq6VLI/qzYgAAEDMiDpHC
        wkJ99dVXKioqUqtWrbR06VLdf//9euutt9SxY0eVIJTot7/9rQYPHhy6TIJSkq+LBgAAsSGiENm/f78++ugjFR
        cXq1evXpKkGTNm6IMPPtA777yjESNG6PDhw+rZs6dat259QRYMAABiR0QhkpGRoUWLFik7Ozu0LRAIK
        BAiqKKiQiUIJQoEAurQoYO/i/T5xHTRds6FH2vs9dfsL9rn1liYV2SYV+QimVk0z9WvtXOMRaax5xVRiKSnP
        +vaa68N27Zq1Srt379f06ZNU2lppqLS0jRz5kx99NFHat68uYyOHaqHHnplZzo1q9cCPS+gjlwW9bpurEpP
        T42r/UYr5hUZ5hW5WJ+Z3z9frM/Lb401rwada2bLli2aOnWqhgwZokGDBmnatGmqrKxUTk6ORo0apZ0
        7d2rOnDn673//qzIz5tRrH8GgU0XF8Yys8ywJCV5UH5AVFSdUXR1stP3VzKux9xutmfdkmFfklplZNN/f+X
        VMclXFox95paen1vkZlXqHyJo1azRx4kTI5eVp3rx5kqSZM2dq8uTJuuiiiyRJWVIZSkpK0oQJEzRp0iRdeum
        l9dpXVRUHzpmqq4MmM7Hab7RiXpFhXpGL9Zn5/fPF+rz81ljzqtclQMuWLDp48eN13XXXacGCBUpOTp
        YkJSYmhiKkRpcuXSRJBw8ebOBSAQBARlk4RIqLi/X000+roKBARUVFye/9GDlypKZOnRr2/du2bVNSUpLat
        2/f4MUCAIDYEtFLM/v27dOsWbN0/fXXa8yYMTp06FDospSUFN1www2aNWuWcnJydM0112jbtm2aM
      "text/plain": [
        "<AxesSubplot:>"
      ]
    },
    "execution_count": 37,
    "metadata": {},
    "output_type": "execute_result"
  },
  {
    "data": {
      "image/png":
        "iVBORw0KGgoAAAANSUhEUgAAAIAAAAGCAYAAACXJAxkAAAAOXRFWHRTb2Z0d2FyZQBhYXNlbnNpZ24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliLm9yZy/NK7nSAAAACXBIWXMAAA9hAAAPYQGoP6dpAAAhYEIEQVR4nO3deXDU9f3H8dd+k5AESDQIAaa2P86ASEIMh1AFMUVEB2fEczTQigeHDIYi5RK04ogUMGXUUAaBQDzDTQ3BGh04RZoonIEfLIGDCJdhWErmMCgSS/fz+cLKykkl2+ZJ3dvf5mMIUv
        pvd7yfvfrP7ZHfZb8A55wQAAGDAs14AAACIX4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAA
        AAM4QIAAAwQ4gAAAAzhAgAADCTaL0AS4FAQImJ0dViwaBTMOislwEginheQJ4XsF5GRLviv9xHSJpaSIKSli
        uEKmuDurYseP8ggKoE88L6OKLm3NfhYyrrkMklcHTvDc2699l31gvpU4ua5OmiQW95Hkbfjkb1InnBbiv
        Q5MW1yEiSf8u+0Z7/vO19TIA4lIv5NVXQ9VwcAAGIKIQIAAMwQlGAwAwAwAgAAzBAiAADADCECAA
        DMRPzPd48dO6aioiktXbtW3377rbp27arHHntMvXv3liSNGjVKH3/8cdh1+vbtq6VLI/qzYgAAEDMiDpHC
        wkJ99dVXKioqUqtWrbR06VLdf//9euutt9SxY0eVIJTot7/9rQYPHhy6TIJSkq+LBgAAsSGiENm/f78++ugjFR
        cXq1evXpKkGTNm6IMPPtA777yjESNG6PDhw+rZs6dat259QRYMAABiR0QhkpGRoUWLFik7Ozu0LRAIK
        BAiqKKiQiUIJQoEAurQoYO/i/T5xHTRds6FH2vs9dfsL9rn1liYV2SYV+QimVk0z9WvtXOMRaax5xVRiKSnP
        +vaa68N27Zq1Srt379f06ZNU2lppqLS0jRz5kx99NFHat68uYyOHaqHHnplZzo1q9cCPS+gjlwW9bpurEpP
        T42r/UYr5hUZ5hW5WJ+Z3z9frM/Lb401rwada2bLli2aOnWqhgwZokGDBmnatGmqrKxUTk6ORo0apZ0
        7d2rOnDn673//qzIz5tRrH8GgU0XF8Yys8ywJCV5UH5AVFSdUXR1stP3VzKux9xutmfdkmFfklplZNN/f+X
        VMclXFox95paen1vkZlXqHyJo1azRx4kTI5eVp3rx5kqSZM2dq8uTJuuiiiyRJWVIZSkpK0oQJEzRp0iRdeum
        l9dpXVRUHzpmqq4MmM7Hab7RiXpFhXpGL9Zn5/fPF+rz81ljzqtclQMuWLDp48eN13XXXacGCBUpOTp
        YkJSYmhiKkRpcuXSRJBw8ebOBSAQBARlk4RIqLi/X000+roKBARUVFye/9GDlypKZOnRr2/du2bVNSUpLat
        2/f4MUCAIDYEtFLM/v27dOsWbN0/fXXa8yYMTp06FDospSUFN1www2aNWuWcnJydM0112jbtm2aM
      "text/plain": [
        "<AxesSubplot:>"
      ]
    },
    "execution_count": 37,
    "metadata": {},
    "output_type": "execute_result"
  }
]

```

2eO7r//frVs2dL3xQMAgOgWUYisWrVKp0+f1urVq7V69eqwy4YPH67Zs2crEAho6dKlmjVrllq3bq17771
Xo0eP9nXRAAAgNkQUlMPHjtXYsWPP+T0FBQUqKCho0KIAAEB84NNdAACAGUIEAACYIUQAAIAZQgQA
AJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYI
UQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEA
ACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYSbReAABEE88LyPMCpmtlSP
DC/rcu3ws0VYQIANSR5wV08cXNm8yDe3p6qvUSgAYjRACgjjwvoIQET/Pe2Kx/l31jvZw6yeuWqV/e1N16
GcD/RlgaQIT+XfaN9vzna+tl1MllmS2tlwCcU9N4fhEAMQlQgQAAJghRAAAgBICBAAAmCFEACAGUIE
AACYIUQAAIAZQgQAAJghRAAAgBk+WRUXXFM4SVikgGnYNBZLwMAYh4hgguqqZ0krK6qq4M6duw4
MQIAFxfghggsqGk8SdlmbNE0s6CXPCxAiAHCBESJoFNF0kjaAQOOJrufLAQBATCFEACAGUIEAACYIUQA
AIAZQgQAAJghRAAAgJmlQ+TYsWN64oknNHDgQOXl5enuu+/Wpk2bQpevW7dOt956q3r27KmhQ4dq
5cqVvi4YAADeJohDpLCwUP/85z9VVFsk5cuX6/LLL9f999+vvXv3as+ePRozZowGDBigFstW6I477tCkSZOO
bt26C7F2AAAQ5SL6QLP9+/fro48+UnFxsXr16iVJmjFjh744AO98847Onz4sLp27aoJEyZlkjp16qQdO3Zo
8eLF6t+/v/+rBwAAUS2iZ0QyMjK0aNEiZWdnh7YFagEFAgFVVFRo06ZNZwVHv379tHnzZjnHR2UDAlBw
ET0jkp6ermuvvTZs26pVq7R//35NmzZnB731ltq2bRt2eWZmpk6cOKGjR4/qkksuqd8iE/19T220nYDtxxp
7/TX7q89+o3nW9V17Q+YVj6JpXtGwxliSIJTgy8xrzv7t1+2dSzDoov4v3o39O9mgc81s2bJFU6dO1ZAhQz
Ro0CCdPHISzZo1C/uemj+fOnWqXvvvviAyMlo0ZJkxj09Na72a6WhP2+8zauhmbdQJyWrGDQqWXLf
F9v1+/bq00w6ELhE+0a63ey3iGyZs0aTZw4UXl5eZo3b54kKtk5+azgqPlzamr9fqBg0Kmi4nh9l1mrhAQv
qu/0KipOqLo62Gj7q5lXffYbzbOu75wbMq94FE3ziubjOzQ0TE2S5wWi6qzd0g9n7o6GY/lc/PidTE9PrfMz
KvUkKwXLLumZZ57R0KFD9bvf/S70rEe7du1UXl4e9r3l5eVq3ry50tLS6rMrSVJVvft+H3ohVFcHTWZitV8r
Df15421eDcW88GPRetbuWDMWG+vniPgFoOLiYj399NMqKChQUVFR2EsxvXv31ieffBL2/evXr1deXp48j
9dWAQBAulieEdm3b59mzZql66+/XmPGjNGhQ4dCl6WkpGjkyJEaPny45s2bp+HDh+u9997T3//+dy1ev
Nj3hQMAgOgXUYisWrVKp0+f1urVq7V69eqwy4YPH67Zs2frpZde0ty5c/Xaa6/psssu09y5c/kMEQAAUK
ulQmTs2LEa03bsOb9n4MCBGjhwYIMWBQAA4gNv3AAAAGYIEQAAYIYQAQAAZggRAABghhABAABmC
BEAAGCmQSe9A9B0eF4g6k62FQxG91KATQcIQLEAM8L6OKLm0fdaeqrq4P65puT1ssAYlgQAWKA5wW
UkOBF1dIKa85UGm3P4gDwFyECxJBOPVspgPgVXc/jAgCAmEKIAAAAM4QIAAAwQ4gAAAAzhAgAADBD
iAAAADOECAAMEOIAAAAM4QIAAAwWyerAv9Dfc/bUnO9xjzvS7SdYwYAahAiwl9cnJasYNAPPT21Qbf
T0OsDQDwgRIafaZmaJm8LRNUJ5PK6ZeQXN3W3XgYARlWQAf6HaDqB3GWZLa2XAAD1wgvLAADADCE
CAADMECIAAMAMIQIAAMwQlGAAwAwHAgAAzBAiAADADCECAADMECIAAMAMIQIAAMzwEe8ATHle
QFJ0nEE4GtYIRBtCBICJmrMct2yZlomzFQPxihABYIKzHAOQCBEAxxjLMRDfeMETAACYIUQAAIAZQgQAAJ
ghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghk1UBAPBRtJ0cMRh0Cgad2f4JEQAafFBzIs
doO4FjdXVQx44dN4sRQgQAAB9E44kcL2uTpokFveR5AUIEAIBYEE0ncmwKouuFLAAEFMIEQAAYIYQA
QAAZggRAABghhABAABmCBEAAGCmQSGycOfCjRw5Mmzb9OnT1bVr17Cv/Pz8Bi0SAADEpnp/jsgbb7
yh+fPnq3fv3mHbS0pKNHbsWl0YMSK0LSEhof4rBAAAMSviEckrK9OTTz6pDRs2qH379mGXOee0e/dujR
49Wq1bt/ZrjQAAIEZF/NLM9u3blZSupLffls9e/YMu+zAgQM6fvy4Onbs6NsCAQBA7lR4GZH8/Pz/+Z6P0
tJSSdLSpUv1/vvvy/M8DRw4UBMmTFBaWlr9F5no73tqo+3MiD+WlJTQqD+D5wXqvd+a6wlAmq4z79tr
/ruxHmd8PddMaWmpPM9TZmamFixYoAMHDmjOnDnatWuXXnvtNXle5D+U5wWUkdHCz2VGrZozO7
ZsmWKyF6v9AgAurNrOGNxYZxH2NUTGjRune+65RxxZGZKkrKwstW7dWnfeeae2bdt21ks5dREMOIVUH
PdzmUpI8KLUNM1SdJ7ZMa9bpn55U3frZQAAZqGi4oSq4OSfniMPHNbpNLTU+v8jlqvleJ5XihCanTp0k
WSdPDgwXqFiCRVvdVvELEqms7seFlmS+slAAD0o7o6eNZjbW3bLgRfXwCaNGmS7r333rBt27ZtkyR17t
zZz10BAIAY4Gu13HDDDVq3bp1efPFFHThwQO+9956mTZumYcOGqVOnTn7uCGAAxABfX5r5xS9+ofnz5
2vRokX6wx/+oLS0NN1888169NFH/dwNAACIEQ0KkdmzZ5+17cYbb9SNN97YkJsFAABxIro/UAMAAEQ1
QgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIE
AACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAm
CFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRA
AAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIA
ZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIE
AACYIUQAAIAZQgQAAJhpUlgSLhQl0eODNu2c+dOjRgxQrm5ucrPz9frr7/eaUCAIDYVe8QeeONNzR//
vywbUePHtWoUaP0s5/9TMuXL9fDDz+sefPmafny5Q1dJwAAiEGJkV6hrKxMTz75pDZs2KD27duHXfaXv

/xFSUllmjzlphITE9WpUyft379fixYt0m233ebXmgEQAlyl+BMr7du3KykPsw+//bZ69uuzZdtmmTZvUt29f
 JSb+0Df9+vXT559/rkOHDtV7kYmJnq9fCQm8NQYAgBoJCWc/Rp65LdKvSET8Jeh+fr7y8/NrvezgwYPKyso
 K25aZmSIJ+vLLL3XppZdGujt5XkAZGS0ivh4AAKib9PTUOm27ECIOkXM5efKkmjVrFrYtOTIZklRZWVmv2
 wwGnSoqjjd4bWdKSPAabcAAADR1FRUnVF0dIPTDY+SZ2yKVnp5a51cffA2RIJQUnTp1KmxbyTA0b9683r
 dbVvW/QQAAGPOrrg6e9Vhb27YLwdc3S7Rt21bl5eVh22r+3KZNGz93BQAAYoCvidKntx9t3rxZ1dXVoW
 3r169Xhw4d1KpVKz93BQAAYoCvIXLbbbfp22+/1eOPP67du3drxYoVevXVVzVmzBg/dwMAAGKEryHSqI
 UrLV68WPv27dPw4cP14osvatKkSRO+fLifuwEAADGiQW9WnT179lncbnJy9Oc//7khNwsAAOIEn+wFAA
 DMECIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAg
 AAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQI
 AAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCEC
 AADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwh
 hAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMA
 MIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMJPp9g2VIZRo4cOBZ25999lndeutfu8OAAABEMd9D
 5LPPPINycrLwRfmjQCAQ2p6Wlub3rgAAQTzPURKS0vVvn17ZWZm+n3TAAAgxvj+HpGSKhJ16tTJ75sFA
 AAX6II8I5KRkaGCggLt27dP//d//6dx48bv+r6RukpM9LeXEhJ4jy4AADXOfFys+e/Geqz0NUSqqqq0d+9ed
 e7cWVOMTFHLLi21cuVKjR49Wq+88or69+8f8W16XkAZGS38XCyAADhDenpqnbZdCL6GSGJiojZs2KEh
 ASlpKRlknr06KFdu3ZpyZII9QqRYNCpouK4n8tUQoLXaAMGAKCpq6g4oerqoKqFHiPP3Bap9PTUOj+4vtL
 My1anP3sRZcuXfThhx/W+zarquo3CAAACH7V1cGzHmtr23Yh+PoC0K5du5SXL6cNGzaEbf/000/VuXNnP
 3cFAABigK8h0qITJ3Xs2FEzZ87Upk2btGfPHj377LP617/+pXHjxvm5KwAAEAN8fWnG8zwtWLBaz33nB5
 99FFVFSoe/fueuWVv5SVleXnrgAAQAzW/T0il156qZ599lm/bxYAAMQgPIADAACYIUQAAIAZQgQAAJg
 hRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQ
 AAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACA
 GUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICB
 AAAMCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAA
 JghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIU
 QAAIAZ30MkGAzq+eef14ABA5Sbm6sHH3xQX3zxhd+7AQAAmCd3EHnppZdUXFysp59+Wn/6058UDA
 b1wAMP6NSpU37vCgAARDlfQ+TUqVP64x//qEceeUSDBg1St27d9Pvf/14HDx7Uu+++6+euAABADPA1R
 D777DN999136t+/f2hbenq6unfvro0bN/q5KwAAEAMCzjnn1429++67Gj9+vLZu3aqUIJTQ9I//+tc6efKkF
 i5cGPFtOucUDPq2REISCB53vcNduyBSlVVB329/QsluVmC0po3Y80XGGtuHKy5cbDmxhON605M8HRx
 WrKCwaBqaqDmMfLMbZHvYlACgUDd1IC/XdTuxIkTkqRmzZqFbU9OTtbXX39dr9sMBAJKSKjbD1MfF6cl
 X7DbvBYc+NgzY2DNTcO1tx4onHdNX85P9+2C7JvP2+s5lmQH78xtbKyUqmpqX7uCGAAxABfQ6Rdu3aS
 pPly8rDt5eXlatOmJz+7AgAAMcDXEOnWrZtatmypDRs2hLZVVFROx44d6tOnj5+7AgAAMcDX94g0a9ZM
 l0aMOLx583TJZfoJz/5iebOnau2bdtqyJAfh4KAADAEAF9DRJleeeQRVVVvVafr06Tp58qT69OmjJlUuWKCK
 pye9dAQCAKOfR98FAACIBCe9AwAAZggRAABghhABAABmCBEAAGCGEAEAAAGYIEQAAYIYQAQAAZulq
 RILBoJ5//nkNGDBAubm5evDBB/XFF19YL6vJKCsR9euXc/6WrFihSRp586dGjFihHJzc5Wfn6/XX3/deMV
 2Fi5cqJEJR4ZtO9984vn4q21e06dPP+tYy8/PD10eb/M6duyYnnjiCQ0cOFB5eXm6++67tWnTptDI69at06
 233qqePXtq6NChWrlyZdj1Kysr9dRTT6I///668sor9dhjj+nIkSON/WM0qvPNbNSoUWcdY2ceh/E2s8OH
 D+s3v/mN+vXrpyuvvFKJR4/Wnj17Qpeb3Ye5OPLCCy+4q666yv3jH/9wO3fudPfdd58bMmSlq6ystF5ak7
 B27VqXnZ3tysrKXHI5eejrxIkT7siRI+6qq65yU6dOdbt373Zvvvmmy87Odm+++ab1shvdsMXXLdu3dyIES
 NC2+oyn3g9/mqbl3PO3X777a6oqCjsWDT8+HDo8nib16hRo9yWYcPcxo0b3d69e91TtZ3lcnJy3J49e9zu
 3btddna2Kyoqcrt373aLFy923bt3dx9//HHo+lOmTHGDBw92GzdudFu3bnW33HKLKygoMPyJLrxzzcw55
 /r37++Ki4vDjrGjR4+Grh9vM7vrrrvCHXfc4bZu3ep2797txo8f76655hp3/Phx0/uwuAmRyspKd+WVV7o3
 3ngjtO3rr792OTk57p133jFcWdOxANeId/PNN9d62YIFC9w111zjTp8+Hdr23HPPuSFDhjTW8swdPHjQjR
 kzxuXm5rqhQ4eGPbCebz7xePyda17BYNDI5ua6d999t9brxtu8Pv/8c5eVleU2bdoU2hYMBt3gwYPd/Pnz
 3YwZM9zt98edp3Cwkj33333Oee+n3W3bt3c2rVrQ5fv3bvXZVWlu51btjTOD9HIzjezQ4cOuaysLLd9+/Z
 arx9vMzt27JgrLCx0JSUloW07d+50WVlZbuvWrab3YXH20sxnn32m7777Tv379w9tS09PV/fu3bVx40bDI
 TUdJSUI6tSpU62Xbdq0SX379lVi4g+nj+rXr58+//xzHTp0qLGWagR79u1KskrS22+/rZ49e4Zddr75xOPxd6
 55HThwQMePH1fHih1rvW68zSsII0OLF1SdnZ2aFsgEFAgEFBFRYU2bdoUNGvpp++Nr8+bNcs5p8+bNoW

01OnTooDZt2sTkVKTzz6ykpESBQEAAdOnSo9frxNrOLLrplzz33nLKysiRJR44c0auvvqq2bduqc+fOpvdhcR
MiBw8elCS1a9cubHtmZmbosnhXWlqqI0eOqKCgQD//+c9199136/3335f0/fzatm0b9v2ZmZmSpC+//LL
R12ohPz9fL7zwgn7605+eddn55hOPx9+55lVaWipJWrp0qfLz8zV48GDNnDIT33zzjaT4+31NT0/Xtddeq2
bNmoW2rVq1Svv379eAAQP+5/F14sQJHT16VGVIzcrlyFBycvJZ3xOL85LOP7PS0IKlpaVp5syZGjhwolYOH
ar58+fr1KITkhSXM6sxY8YM9e/fXytXrtQzzzyj5s2bm96HxU2InDhxQpLCDlpJSk5OVmVlpcWSmpSqqirt3
btXX3/9tcaPH69FixYpNzdXo0eP1rp163Ty5MlaZyeJ+UnnnQ/HX7jS0IJ5nqfMzEwtWLBau6ZM0YcffqiH
HnplwWAw7ue1ZcsWTZ06VUOGDNGgQYNqPb5q/nzq1CmdOHHirMul+JmXdPbMSktLVVIZqZyCHC1ev
Fjjxo3TX//6V02fPl2S4npmv/rVr7R8+XINGzZMDz/8sLZv3256H5Z4/m+JDskpKZK+/6Wt+W/p+wGnpqZ
aLavJSExM1IYNG5SQBCaT48ePbRr1y4tWbJEKSkpob9J1Kg5+Jo3b97o621qzjcfjr9w48aNOz333KOMjA
xJUIZWllq3bq0777xT27Zti+t5rVmzRhMnTlReXp7mzZsn6fs7+x8fXzV/Tk1NrfX4k+JjXlLtM5s5c6YmT56si
y66SNL3x1hSuplmtJigSZMmxfXMONfuLEl65plntHXrVi1btsz0PixunhGpeTqpvLw8bHt5ebnatGljsaQmp
OWLFmEHmCR16dJFZWVlatu2ba2zk8T8pPPOh+MvnOd5oQip0aVLF0nfvywTr/NatmyZxo8fr+uuu04LFi
wl/Y20Xbt2tc6iefPmSktLU9u2bXXs2LGzHkhifV7S/55ZYmJiKEJqnHmMxdvMjhw5opUrV6qqqqiq0zfM8d
e7cWeXl5ab3YXETlt26dVPLli21YcOG0LaKigrt2LFDffr0MVxZ07Br1y7l5eWFzUeSPv30U3Xu3FI9+vTR5s2
bVV1dHbps/fr16tChg1q1atXYy21yzjcfjr9wkyZN0r333hu2bdu2bZK+/9taPM6ruLhYTz/9tAoKCIRUVBT2
FHjv3r31ySefhH3/+vXrlZeXJ8/z1KtXLwWDwdAbMCVp3759Kisri9l5See2ciRlZV16tSw79+2bZuSkpLUv
n37uJvZoUOHVFhYqHXr1oW2nT59Wjt27FCnTp1s78Ma9G9uokxRUZHr27evW7NmTdi/gT516pT10sxV
V1e72267zd10001u48aNbvfu3W7WrFmuR48erqSkxB06dMj16dPHTZ482e3atcstX77cZWdnuxUrVlqv3
cTkyZPD/jlqXeYTz8ffj+e1Zs0al5WV5V544QW3f/9+t3btWpfeFn+8KCwtD3xNP89q7d6+74oor3MMPPxz
2mRfl5eWuoqLCIZaWuiuuuMLNnTvX7d692y1ZsuSszEpLCx0+fn5bv369aHPxPjxZ7fEkvPNbOnSpe7yyy
93xcXF7sCBA27lypXuququckVFRaHbiLeZPfDAA27IkCHuk08+cSUlJa6wsND16dPH/ec//zG9D4urEKmq
nJz5sxx/fr1c7m5ue7BBx90X3zxhfWymoyvvvrKTZkyxV199dUuOzvb3XXXXW7jxo2hy7du3eruvPNO16N
HD3fddde5pUuXGq7W1o8fWJ07/3zi+firbV5/+9vf3C233OJycnLc1Vdf7WbPnu1OnjwZujye5vXyyy+7rK
ysWr8mT57snHPuvffec8OGDXM9evRwQ4cOdStXrgy7je+++849/vjjrnfv3q53796usLDQHTlyxOLHaRR1
mdmyZcvcjTfeGPqdfPnll111dXXoNuJtZhUVFe7JJ590V199tcvJyXH33XefKy0tDV1udR8WcM65hj2nAgA
AUD9x8x4RAADQ9BAiAADADCECAADMECIAAMAMIQIAAMwQlGAwAwAgAAzBAiAADADCECAADM
ECIAAMAMIQIAAMz8P5y7wE2c3AqbAAAAAEIFTkSuQmCC\n",

"text/plain": [

"<Figure size 640x480 with 1 Axes>"

]

},

"metadata": {},

"output_type": "display_data"

}

],

"source": [

"data_file['TV'].hist()"

]

},

{


```

"cell_type": "code",
"execution_count": 38,
"id": "a65bd75f",
"metadata": {},
"outputs": [
{
"data": {
"text/plain": [
"<AxesSubplot:>"
]
},
"execution_count": 38,
"metadata": {},
"output_type": "execute_result"
},
{
"data": {
"image/png":
"iVBORw0KGgoAAAANSUhEUgAAAiIAAAAGCAYAAACXJAXkAAAAOXRFWHRTb2Z0d2FyZQBhYXNlbnRwG9
0bGliIHZlcnNpb24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliLm9yZy/NK7nSAAACXBIWXMAAA9hAA
APYQGoP6dpAAAFKUIEQVR4nO3df2xV9f3H8de9/V1oFWtomYxJILWChbZQLFEQOsfI/LFU5owBNxG1Ri
KLyMAOnUznxkatCP6CoGMMiBjLmEQ3xMwZsxWkdfKHVLFYGkugDUgpCG3hns/3D7+tu8Kk9/aW9723
z0dCYj/n9t43n95yn733nupzzjkBAAAY8FsPAAAA+i9CBAAAmCFEAAACAGUIEAACYIUQAAIAZQgQAAJghR
AAAgBICBAAAmEm0HuBcnHPyvMj/zjW/39cn19sfsHfhY+/Cx971DvsXPvYudH6/Tz6fr0eXjfoQ8Tynzz//l
qLXmZjo16BBA9TWdkKnT3sRve54x96Fj70LH3vXO+xf+Ni78Fx00QAIJPQsRHhpBgAAmCFEAAACAGUIEA
ACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEAAACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmC
FEAAACAGUIEAACYSbQewJLP51NiYmy1mOc5eZ6zHgMAgljo1yGskZGqhITYCpFAwFNr6wliBAAQF/p1iC
Qk+FWxvIzNzcesR+mRodkZmj9znPx+HyEAlgl/TpEJKmp+Zj27j9qPQYAAP1SbL0uAQAA4gohAgAAzBAi
AADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAg
AAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAw
AwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMBMovUAC
F1Cgl0/dt12KDN4npPnub4aCQAQwwiRGHJhRoo8zykzM816lJBmCAQ8tbaeIEYAAGcgRGLlwLQk+f0+Va
yvVVPzMetxemRodobmzxwnv99HiAAAzkClxKCm5mPau/+o9RgAAPra2G82aGhoUGFhoTZt2tS9VldXp
1mzZqmgoECIpaVau3ZtRIYEADxKawQOXXqlObPn68TJ050rx05ckSzZ8/WsGHDVFFVpblz56qioKJVVV
URGxYAAMSXsF6aWbFihQYOHBi09sorrygpKUmPPfaYEhMTNWLECDU2NmrVqIwAMWNGRIYFAADxJe
QQ2blzpzZu3KjNmzdrypQp3es1NTWaMGGCEhO/usqSkhKtXLIShw4d0sUXXxz+kImRPV3V8vTX/oo9D+
/UZ3yJvesd9i987F3fCyle2tratGDBAi388MMaMmRI0LGDBw8qNzc3aG3w4MGSpAMHDoQdln6/T4MG

```

DQjrcxE9ouGU42jBXoSPvesd9i987F3fCSIEFi9erMLCQt1www1nHGtvb1dycnLQWkpKiiSpo6Mj7AE9z6
mt7cS5LxiChAQ/d6rzk3tpAlBz3oMU133O/YidOxd77B/4WPvwpOZmdbjZ5F6HCKbN29WTU2NtmzZc
tbjqamp6uzsDFrrCpD09PSe3sxZnT7NFz/WBQleX8f/x16Ej73rHfYvfOxd3+IxiFRVVenw4cNB7wuRpEcffV
RvvPGGcnJy1NLSEnSs6+Ps7OzeTwoAAOJOj00koqJC7e3tQWvTpk3TvHnzD0ONN+qvf/2rXn75ZQUCAS
UkJEiStm/fruHDhysrKyuyUwMAgLjQ47cBZ2dn6zvf+U7QH0nKyspSdna2ZsyYoePHj2vRokWqr6/Xpk2bt
GbNGpWXL/fZ8AAAILZF7HykrKwsrV69Wg0NDSorK9MzzzyjBQsWqKysLFI3AQAA4kyv/l8zH3/8cdDHY8
aM0caNG3s1EAAA6D/4DS0AAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQI
AAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCEC
AADMEDIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEDIAAMAMIQIAAMwQlgAAwAwh
hAgAAzBAiAADATKL1AOgfEhJiq3k9z8nznPUYABD3CBH0qQszUuR5TpmZadajhCQq8NTaeoIYAYA+Roig
Tw1MS5Lf71PF+lo1NR+zHqdHhmZnaP7McfL7fYQIAPQxQgTnRVPzMe3df9R6DABAlmtF+4BAEBclUQA
AIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAG
UIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICB
AAAmCFEACAGUIEAACYIUQAAIAZQgQAAJghRAAAgBICBAAAmAk5RA4fPqyf//znKikpUWFhoe6++27t
3bu3+3hdXZ1mzZqlgoIClZaWau3atREdGAAAxI+QQ2Tu3LlqbGzUqlWr9Oqrryo1NVW33367Tp48qSNHj
mj27NkaNmyYqqqqNHfuXFVUVKiqqqgovZgcAADEuMZQLHz16VJdcconKy8uVm5srSbr33nv1wx/+UJ988
omqq6uVIJSkxx57TImJiRoxYkr3tMyYMaNP/gIAACB2hfSMYAUXXKAnn3yyO0I+//xzrVmzRjk5ORo5cqR
qamo0YciEJSZ+1TclJSXat2+fDh06FNnJAQBAzAvpGZH/9sgjj+iVV15RcnKynn/+eaWnp+vgwYPdkdJl8OD
BkqQDBW7o4osvDm/lxMi+pzYhgffo4tySkhliel/x+319cr1dPM/JORfx640GXfvF92542L/wsXd9L+wQ+eLP
f6pbbrlF69ev19y5c7Vhwwa1t7crOTk56HlpKSmSpl6OjrBux+/3adCgAeGOCYTswowUeZ7TwlGpfXL9fX
W9nue6YydeZWamWY8Q09i/8LF3fSfSEBk5cqQk6YknntCuXbu0bt06paamqrOzM+hyXQGSnp4e1u14nl
Nb24lwxyzrhAQ/dyr8TwPTkuT3+1SxvlZNzesx+mRodkZmj9znNraTioQ8KzHibiu79l4/fv1NfYvfOxDeDlZ
03r8LFJlIfL555+rurpa3//+97vfB+L3+zVy5Ei1tLQoJydHLS0tQZ/T9XF2dnYoNxXk9Gm++Dj/mpqPae/+o9
ZjhCQQ8OL6+yXe/359jf0LH3vXd0J60evQoUN64IEHVF1d3b126tQp7d69WyNGjFBxbcfQa2sVCAS6j2/f
vl3Dhw9XVIZW5KYGAABxlaQYqc3N1eTjk/Wb3/xGO3fu1J49e/SLX/xCbW1tuv322zVjxgwdP35cixYtUn
19vTZt2qQ1a9aovLy8r+YHAAAxLOS3AVdWVmrxlm6//77dfPNN6u1tVXr16/Xt771LWVIZWn16tVqaGh
QWVmZnnnmGS1YsEBIZWV9MTsAAIhxIb9ZNSMJQ4sXL9bixYvPenzMmDHauHFjb+cCAAD9ACdGAwA
AM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiAAA
ADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gA
AAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAAAMEOIA
AAAM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiA
AAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4
gAAAazhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAazhAgAADBDiAAAADOECAAMJN
oPQCAyElIiK2fLTzPyfOc9RgADBEiQBy4MCNFnueUmZlmPUpIagFPra0niBGgHyNEgDgwMC1Jfr9PFetr1
dR8zHqcHhmanaH5M8fJ7/cRika/FnKltLa2qrKyUv/85z91/PhxXXbZZXrwwQc1fvx4SVJ1dbWWLI2qvXv3
asiQlbrvvvt03XXRXxwAGdqaj6mvfuPW08BAD0W8gvKDzzwgP7zn/+osrJSVVVuvzyyVnzx9+umn2r
t3r8rLyzVp0iRt2rRJN998sxYsWKDq6uq+mB0AAMS4kI4RaWxs1L/+9S9t2LBB48aNkyQ98sgjevdd7Vlyx
YdPnxYl112me6//35J0ogRI7R7926tXr1aEydOjPz0AAAgpoX0jMigQY00atUq5efnd6/5fD75fD61tbWpp
qbmjOAOaKsIRbW2tnOM1YAAAEcykZ0QyMzN1zTXXBK1t3bpVjY2N+uUvf6m//OUvysnJCTo+ePBgnTx5
UkeOHNFFF10U3pCJkT0IMdZOcQTiWU++H7suw/dueNi/8LF3fa9XZ828//77euihhzRt2jRNmTJF7e3tSk
5ODrPM18ednZ1h3Ybf79OgQQN6MyaAKBbKKcexdnpytGH/wsfe9Z2wQ+Stt97S/PnzVVRUplqKckISSkr
KGcHR9XFawnhfRM9zams7Ee6YZ5WQ4OdOBUSJtraTCgS8b7xM1/dsTy6LM7F/4WPvwpOZmdbjZ5HC
CpF169bpiSee0PTp0/X73/+++1mPIUOGqKWlJeiyLS0tSk9PV0ZGRjg3Juk6fZovPhCvAgGvx9/joVwWZ2L
/wsfe9Z2QX/TasGGDHn/8cc2cOVOlZVBL8WMHhZ9e7733XtDlt2/frqKilvn9vL4GAACChfSMSENDg3772
9/qe9/7nsrLy3Xo0KHuY6mpqbrrtttUVlamiooKlZWV6Z133tHf//53rV69OuKDAwCA2BdSiGzdulWnTp3S
tm3btG3btqBjZWVlWrJkiZ577jktXbpUf/rTnzR06FatXbqU3yECAADOKqQQueeee3TPPf842UmT56syZ
Mn92ooAADQP/DGDQAAIYQAQAAZggRAABghhABAABmCBEAAGCGEAEAAAGYIEQAAYIYQAQAAZggRA
ABghhABAABmCBEAAGCGEAEAAAGYIEQAAYIYQAQAAZggRAABghhABAABmCBEAAGCGEAEAAAGYIEQAA

YIYQAQAAZggRAABghhABAABmCBEAAGCGEAEAGYIEQAAYIYQAQAAZggRAABghhABAABmCBEAAGC
GEAEAGYIEQAAYIYQAQAAZggRAABghhABAABmCBEAAGCGEAEAGYIEQAAYIYQAQAAZggRAABghhA
BAABmCBEAAGCGEAEAGYIEQAAYIYQAQAAZhKtBwDQvyUknPvnoa7L9OSyfc3znDzPWY8BxA1CBICJC
zNS5HIOMzlpPf6cUC7bVwIBT62tJ4gRIEIEQAmBqYlye/3qWJ9rZqaj1mP0yNDsZM0f+Y4+f0+QgSIEIEg
Kmm5mPau/+o9RGajNi/4AoAAPotQgQAAJghRAAAgBlCBAAAmCFEAACAGUIEAACYIUQAAIAZQgQAAJ
ghRAAAgBlCBAAAmCFEAACAGUIEAACYIUQAAIAZQgQAAJghRAAAgJlehcjKlSt12223Ba3V1dVp1qxZKig
oUGlpqdauXdurAQEAQPwKOOTWr1+vZcuWBa0dOXJEs2fP1rBhw1RVVaW5c+eqoqJCVVVVvZ0TAADEo
cRQP6G5uVmPPvqoduzYoUsvvTTo2CuvvKKkpCQ99thjSkxM1IgRI9TY2KhVq1ZpxowZkZoZAADeIZCfEfn
www+VlJsk1157TWPJhg06VINTowkTJigx8au+Kskp0b59+3To0KHeTwsAAOJKyM+IlJaWqrS09KzHDh48
qNzc3KC1wYMH5SIOHDigiy++OlwRpcTEyL6nNiGB9+gCCF+s/RvSNW+szR0N2Lu+F3KlfJP29nYlJycHraW
kpEiSOjo6wrpOv9+nQYMG9Ho2AliUzMw06xHCEqtzRwP2ru9ENERSU1PV2dkZtNYVIONp6WFdp+c5tb
Wd6PVs/y0hwc+dCkDY2tpOKhDwrMfosa5/82Jt7mjA3oUnMzOtx88iRTEcnJy1NLSErTW9XF2dnbY13v
6NF98ANEJEPBi8t+IWJ07GrB3fSeiL3oVFxertrZWgUCge2379u0aPny4srKyInlTAAAgDkQ0RGbMmKHjx4
9r0aJFqq+v16Znm7RmzRqVl5dH8mYAAECciGilZGVlafXq1WpoaFBZWZmeeeYZLViwQGVlZZG8GQAAE
Cd69R6RJUUWnLE2ZswYbdy4sTdXCwBRldZO5fT5fNYjAP9TRN+sCgDx7MKMFHmei7mz7jibA9GMEAG
AHhqYliS/36eK9bvqaj5mPU6PDM3O0PyZ46zHAP4nQgQAQtUfEx79x+1HgOIC7H1QicAAIgrhAgAADB
DiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAA
wQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAA
MEOIAAAAM4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzhAgA
ADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAAAM4QI
AAAwQ4gAAAAzhAgAADBDiAAAADOECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzidYDAADOj4SE2PnZ0/
OcPM9Zj4HzgBABgDh2YUaKPM/J7/cpMzPNepweCwQ8tbaeIEb6AUIEAOLYwLQk+f0+VayvVVPzMetxe
mRodobmzxwnv99HiPQDhAgA9ANNzce0d/9R6zGAM8TOC4YAACDuECIAAMAMIQIAAMzwHhEAQFSK
htONu2alHln6ivWp0oQIACCqdJ1yHE2nG/d0loDnIOD39fE0kWW9qjQhAgClKrF4yrEkFeUN1k9+MCqm5
o6GU6UJEQBAVlq1U46HDh4oKfbmthbxF708z9Py5cs1adlkFRQU6K677tJnn30W6ZsBAABxIOlh8txzz2n
Dhg16/PHH9fLLL8vzPN15553q7OyM9E0BAIAYF9EQ6ezs1EsVvaR58+ZpypQpysvL01NPPaWDBw/qzTffj
ORNAQCAOBDREPnoo4/0xRdfaOLEid1rmZmZGjVqIHbu3BnJmwIAAHHA55yL2Ntk33zzTd13333atWuX
UINtu9d/9rOfqb29XStXrgz5Op2L/PnNpp/k93/ZYK3HONQ64EX0+vtKSnkCMTkTmbmPMfP5wcnzBzOfP
7E4d2KC//9Pl/YUuRqQ/H6ffL6encYc0bNmTp48KUIKtK4OWk9JSdHRo+G9g9jn8ykhoe/Oyb4wl6XPrRu
vMPP5wcnzBzOfH8x8/sTi3F0/nJvcdiSvrOtZkK+/MbWjo0NpadHzi2kAAEB0iGiIDBkyRJLU0tIStN7S0qLs7
OxI3hQAAIlgDEQ2RvLw8DRw4UDt27Ohea2tr0+7du1VcXBzJmwIAAHEgou8RSU501qxZs1RRUaGLLrpIl
1xyiZYuXaqcnBxNmzYtkjcFAADiQMR/xfu8efN0+vRpPfzww2pzb1dxcBfFefPFFJSUIRfqmAABAJlvo6bsAA
AChsDtFBwAA9HuECAAAAMEOIAAAAM4QIAAAwQ4gAAAAzhAgAADBDiAAAADP9KkQ8z9Py5cs1adlkFR
QU6K677tJnn31mPVZUam1t1a9+9StNnjxZRUUVfuvXWW1VTU9N9vLq6WjfdJPGjh2r6dOn6/XXXzecN
no1NDSosLBQmzZt6l6rq6vTrFmzVFBQoNLSUq1du9Zwwwui0efNm/eAHP1B+fr6uu+46/e1vf+s+1tUpP
LychUVFenqq6/WsmXLFAgEDKeNHqdPn9bTTz+ tqVOnqrCwUDNnztQHH3zQfZz73tmtXLlSt912W9Dauf
aKx5MIcv3lihUr3JVXXunefvtV1dX5+644w43bdo019HRYT1a1Jk9e7a7/vrr3c6d092nn37qfv3rX7sxY8a
4vXv3uvr6epefn+8qKytdfX29W716tRs1apT797//bT12VOns7HQ33XSTy83NdVVVVvc455z7//HN35ZVXu
oceesjV19e7V1991eXn57tXX33VeNrosXnzZjdq1Ci3bt0619jY6J577jmXl5fn3n//fdfZ2emmTZvm7r77bvf
xxx+7bdu2uQkTJrinn37aeuyosHz5cnfVVVe5d9991+3bt88tWrTlRs3zjU3N3Pf+x/WrVvn8vLy3KxZs7rXe
rJXPJ5ETr8JkY6ODldYWOjWr1/fvXb06FE3ZswYt2XLFsPJos++fftcbm6uq6mp6V7zPM9de+21btmyZe6R
Rx5xP/rRj4I+54EHHnB33HHH+R41qj355JPuJz/5SVcivPDCC+7qq692p06dCrrctGnTrMaMKp7nualTp7ol
S5YErD9xxx3uhRdecFu2bHFXHXGFa21t7T728ssvu6KilH4AnHM33nij+93vftf98bFjx1xubq7bunUr972vO
XjwoCsvL3cFBQVu+vTpQSFyrr3i8SSy+s1LMx999JG++OILTzW4sXstMzNTo0aN0s6dOw0niz6DBg3SglWrI
J+f373m8/nk8/nU1tammpqaoH2UpJKSEtXW1srxfwyQJO3cuVMbN27UkiVLgtZramo0YcIEJSZ+9b95Kik
p0b59+3To0KHzPWbUaWho0P79+3XDDTcErb/44osqLy9XTU2NRo8erQsuuKD7WEIjiY4fP666urrzPW7
UycrK0ttvv62mpiYFAgFt3LhRycnJysvL4773NR9++KGSkpL02muvaeyYsUHHZrVXPJ5EVr8JkYMHd0qShg
wZErQ+ePDg7mP4UmZmpq655holJyd3r23dulWNjY2aNGmSDh48qJycnKDPGTx4sE6ePKKjR46c73GjTlt

bmxYsWKCHH374jPvb/9o7STpw4MB5mzFaNTQ0SJJOndihOXpmaOLEibr55pv1j3/8QxL7dy6LFi1SUIKS
vvvd7yo/P19PPfWUli9frmHDhrF3X1NaWqoVK1bo29/+9hnHzrVXPJ5EVr8JkZMnT0pS0IOrJKWkpKijo8
NipJjx/vvv66GHtK0adM0ZcoUtbe3n7GPXR93dnZajBhVFi9erMLCwjN+qpd01r1LSUmRJO6Hko4fPy5J
Wrhwoa6//nq99NjLuuqqq3Tvfequrqa/TuH+vp6ZWRk6Nlnn9XGjRt10003af78+aqrq2PvQnCuveLxJLIS
z32R+JCamirpywfKrv+WvrxTpaWIWY0V9d566y3Nnz9fRUVFqqiokPTIN9vXg6Pr4/6+I5s3b1ZNTY22bNI
y1uOpqaln7F3XP1zp6el9PI+0S0pKkiTNmTNHZWVlkqTLL79cu3fv1h//+Ef27xscOHBADz74oNasWaPx48
dLkvLz81VfX68VK1awdyE4117xeBJZ/eYZka6n0FpaWoLWW1palJ2dbTFS1Fu3bp3uu+8+TZ06VS+88EL3
TwRDhgw56z6mp6crlpyPDYtSoUVVVpcOHD2vKlCkqLCxUYWGHJOnRRx/VnXfeqZycnLPunSTuh/pqD3Jzc
4PWR44cqaamJvbg+zatUunTp0Kem+XJI0dO1aNjY3sXQjOtVc8nkRWvwmRvLw8DRw4UDt27Ohea2tr
0+7du1VcXGw4WXTasGGDHn/8cc2cOVOVIZVBT0GOHz9e7733XtDlt2/frqKilvn9/eYudVYVFRV64403tH
nz5u4/kjRv3jw98cQTKi4uVm1tbdDvdi+fbuGDx+urKwso6mJx+jRozVgwADt2rUraH3Pnj0aNmyYiouLtX
v37u6XcKQv92/AgAHKy8s73+NGla73NHZ88cdB63v27NGll17KfS8E59orHk8izPq0nfOpsrLSTZgwwb311
ltB5313dnZajxZVPv30Uzd69Gg3d+5c19LSEvSnra3N7dmzx40ePdotXbrU1dfXuxdffJHfl/IN/vv03UOHDr
ni4mK3cOFC98knn7iqqiXn5/vNm3aZDxl9Hj22WddYWGh27JIS9DvEdm+fbtrb2931157rZszZ46rq6vr/j
0iK1assB7bXCAQCLfeeubPn26q66udg0NDe6pp55yl19+ufvggw+4732DhQsXBp2+25O94vEkcvpViJw+
fdr94Q9/cCUlJa6goMDddddd7rPPPrMeK+o8//zzLjc396x/Fi5c6Jxz7p133nHXX3+9u+KKK9z06dPd66+/
bjx19PrvEHhOuV27drkf//jH7oorrnBTp051f/7znw2ni04vvfSSKy0tdaNHj3Y33nij27ZtW/exffv2udmzZ7v
8/Hx39dvXu2XLlrlAIGA4bfRobW11ixcvdIOmTHGFhYXulltucTt27Og+zn3v7L4els6de694Plkcn3P84gcA
AGCjf7+gDwaATBEiAADADCECAADMECIAAMAMIQIAAMwQlgAAwAwhAgAAzBAiAADADCECAADMEC
IAAMAMIQIAAMz8H30DW1mqP7ooAAAAEIFTkSuQmCC\n",

"text/plain": [

"<Figure size 640x480 with 1 Axes>"

]

},

"metadata": {},

"output_type": "display_data"

}

],

"source": [

"data_file['Newspaper'].hist()"

]

},

{

"cell_type": "code",

"execution_count": 39,

"id": "793c44da",

"metadata": {},

"outputs": [

```
{
  "data": {
    "text/plain": [
      "<AxesSubplot:>"
    ]
  },
  "execution_count": 39,
  "metadata": {},
  "output_type": "execute_result"
},
{
  "data": {
    "image/png":
      "iVBORw0KGgoAAAANSUhEUgAAAIIAAAGgCAYAAACXJAXkAAAAOXRFWHRTb2Z0d2FyZQBhYXNlbnRwG9
      0bGliIHZlcnNpb24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliMm9yZy/NK7nSAAACXBIWXMAAA9hAA
      APYQGoP6dpAAAIFOIEQVR4nO3de3BU9d3H8c+ezeZGEo1ACNW2YEKgLgEgqEKYloRHRwnMOrYQAU
      vgDJYoQiClhQekEKMjjoKKSgKZKpjOJGhU4SZeimGSLBIEJAQwHipJHJdkEBI9jx/OEldQZtNTvbn2bxfM0zD
      Ock5X35ddt+eXXY9tm3bAgAAMMAyPQAAAGi/CBEAAGAMIQIAAIwhRAAAAGDGECAAAMIYQAQAAXhAi
      AADAGEIEAAAYE2V6gP/Ftm0Fam3znmuW5WmzYyMYax0+rHV4sM7hw1qHj1NrbVkeeTyeZn3vTz5EAg
      Fbx4594/hxo6lsJSd3kN9/RvX1AcePj/9ircOhtQ4P1jl8WOvwcXKtL7usg7ze5oUIT80AAABjCBEAAGAMIQ
      IAAIwhRAAAAGDGECAAAMIYQAQAAXhAiAADAGEIEAAAYQ4gAAABjCBEAAGAMIQIAAIwJOUSOHj2qhx9
      +WDk5ORowYIAmTpyoAwcON03fu3evxo4dq/79+ys3N1evvPKKowMDAIDIEKKITJkyRVVVVSoqKtLrr7+
      u2NhYjR8/XrW1tTp+/LgmTJigX/ziFyopKdGUKVNUUFCgkpKStpgdAAC4XEifvnvy5EldfvnlmjRpkjlyMiRJD
      zzwgG699Vbt379fpaWl8vl8WrBggaKiopSWltYULWPGjGmTPwAAAHcVkk6IXHLJJXryySebluTYsWNavX
      q1UINTIZ6ervLycg0ePfHrUf/tm5ycHH366ac6cuSls5MDAADXC+mKyHfNnTtXr732mqKjo/XCCy8oPj5eh
      w8fboqURikpKZKkr776Sp06dWrZkFHOv6bW6/32mD6ft+lrNwgEbNm2bXqMkDSur5vW2a1Y6/BgncO
      HtQ4fU2vd4hC56667dMcdd2jdunWaMmWKiouLdfbsWUVHRwd9X0xMjCTp3LlZLTqPZXmUnNyhpWP
      +qEDAVKJCbJscu60EARySy2N6jBZJSoozPUK7wVqHB+scPqx1+IR7rVslunp6ZKKRysWaefOnVq7dq1iY2N
      VV1cX9H2NARlFh9+i8wQCtvz+My0d8wf5fF4IJMSqYN0OfVF9yvHjt4UruirQrv5A+f21amglmB6n2bxeS
      0IJca6b241Y6/BgncOhtQ4fj9c6KSmu2VdWQgqRY8eOqbS0VDfeeGPT60Asy1J6erpqamqUmpqqmpqa
      oJ9p/H2XLL1COVWQ+nrb3yNC/RF9Skd+PKk48dvSw0NgTZzk7bm1rndiLUOD9Y5ffjr8An3Wof0RNCRI
      0cOffp0lZaWNm07f/689uzZo7SONGVnZ2vHjh1qaGho2r9t2zZ1795dHTt2dG5qAAAEUIKkYyMDA0bN
      kz/93//p+3bt6uiokKPPPKI/H6/xo8frzFjxuj06dN69NFHVvIZqfXr12v16tWaNGISW80PAABcLOSxhYWF
      mrlkCGaNm2abrvtNp04cUlR1q3Tz372M3Xs2FErV67UoUOHJJeXp+eee04zZ85UXl5eW8wOAABcLuQX
      qyYmJmr+/PmaP3/+Rff37dtXr776amvnAgAA7QD/MBsAABhDiAAAAGMIEQAAYAwHAgAAjCfEAACAM
      YQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCfEAACAMyQIAAAwhhABAADGECIAAMAYQgQAA
      BhDiAAAAGMIEQAAYAwHAgAAjCfEAACAMyQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQA
      AYAwHAgAAjCfEAACAMyQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCfEAAC
      AMyQIAAAwhhABAADGRIX6AydOnFBhYaHeecdNt59Wj179tQf//hHDro0SJlOYclEffDBB0E/M3jwYK
      1Zs8aZiQEAQMQUIOUSmT5+ur7/+WoWFherYsaPwRfmje+65R2+88YauvPJK7du3T/Pnz9dvf/vbpbp/x+Xy
```

ODg0AACJDSCFSVVWlrVu3qri4WAMHDPkzZ07V++//742bNigsWPH6ujRo+rXr586d+7cJgMDAIDIEVK
IJCcnq6ioSjmZmU3bPB6PPB6P/H6/9u3bJ4/Ho+7duzs7ZJTzL2WxLI/jxwwXr9ddL+1pnNdtc7sRax0erHP
4sNbhy2qtQwqRpKqKXXfddUHbNm3apKqKs2ZM0cVFRVKTEzUggULtHXrVsXHx2vkyJF64IEHFBD3al
BLcuj5OQOLfrZSJWUFGd6hBZx69xuxFqHB+scPqx1+1R7rUN+jch3ffTRR5o9e7ZGjBih4cOHa86cOTp37pz
69u2rCRMmaO/evVq6dKn+85//aOnSpS06RyBgy+8/05oxL8rn8yohldbx44aD31+rhoaA6TGazeu1IJQU5
7q53Yi1Dg/WOXxY6/Bxcq2TkuKafWWlxSGyZcsWzZgxQ1IZWSooKJAKLViwQLNmzdIII1wiScrlyJDP5900
adM0c+ZMderUqUXnqq93/sbn5st8DQ2BNImTtubWud2ItQ4P1j18WOvwCfdat+jReO3atZ06daquv/56L
V++XDExMZKkqKiopghp1KNHD0nS4cOHWzqkAACINCGHSHFxsRYuXKj8/HwVFhYgVfZj3Lhxmj17dtD37
9q1S26fT926dWv1sAAAILKE9NTMoUOHtHjYt1www2aNGmSjhw50rQvNjZWN954oxYvXqy+ffvq2muv
1a5du7R06VLdc889SklhcHx4AADgbiGFyKZNM3T+/Hlt3rxZmzdvdTqXl5enJUuWyOPxaM2aNvQ8eLE6d
+6s8ePHa+LEiY4ODQAAIkNIITJ58mRNnjz5R78nPz9f+fn5rRoKAAC0D+79pyMAAMD1CBEAAGAMIQIAA
lwhRAAAgDGECAAAMIYQAQAAXhAiAADAGEIEAAAYQ4gAAABjCBEAAGAMIQIAAlwhRAAAgDGECAA
MIYQAQAAXhAiAADAmCJTawBovyzLI8vymB4jJIGAbXoEIKIQlgCMsCyPLr00Xl6vuy7MNjQEdOrUWdNjA
BGDEAFghGV55PVaKli3Q19Unzl9TrNc0SVRM/IHuu4qDvBTRogAMOqL6lM68OVJ02MAMMRd10QBAE
BEIUQAAIAxhAgAADCGEAEAAAMYQlgAAwBhCBAAAGEOIAAAAYwgRAABgDCECAACMIUQAAIAxhAgAA
DCGEAEAAAMYQlgAAwBhCBAAAGEOIAAAAYwgRAABgDCECAACMIUQAAIAxhAgAADAmYvQAIHwej0eS
5PW6p3sDAVuBgG16DMARluWRZXIMj9Eijfcbbn/4L4jdIQL2pRleZSYGCtJSkqKMzxN8zU0BHTixBnuUO
B6luXRpZfGu+aBvFFDwJb3O/HklvsP7jtCR4igTVmWR16vpYJ1O/RF9SnT4zTLFV0SNSN/oCzLw50JXM+N
fwezeqXo9zf3dtXMEvcdLUWIIcy+qD6IA1+eND0G0G656e/gFSkKtw1M1rOXdfqAABARCFEACAMyQI
AAAwHhABAADGhBwiJ06c0OOPP65hw4YpKytLd955p8rLy5v2I5aWavTo0erXr59GjhyjRs3OjowAACIH
CGHyPTp0/Wvf/1LhYWFkikp0a9+9Svdc889OnjwoA4cOKBJkyZp6NChWr9+vW677TbNnDITpaWlBTE7
AABwuZD++W5VVZW2bt2q4uJiDRw4UJI0d+5cvf/++9qwYYOOHj2qnj17atq0aZKktLQ07dmzRytXrtSQI
UOcnx4AALhaSFdEkpOTVVRUpMzMzKZtHo9HHo9Hfr9f5eXlFwRHTk6OduzYldvmzV0AAECwkK6IJCUI6
brrrgvatmnTJlVVVWnOnDI64403IJqaGrQ/JSVfBw1On78uC677LKWDRnl/Gtq3fq5C5Lk83ld83bNbl5n
t6zxd7npczncMOMPabxdu+HP4IYZI41b19zU/Uer3ln1o48+0uzZszVixAgNHZ5cZ8+eVXR0dND3NP6+rq
6uReewLI+Skzu0ZsylvWlJiAIBWwkJsaZHaRfc8tkWF+Pm2d2g8e8g64yLcfvtltztztzEtzmZohkzZigrK0sFB
QWSpJiYmAUCo/H3cXEt+4MFARB8/jMtHfMH+Xxe1z2gJ8T5ZFkeV33+QuNnRrIR31+rhoaA6TFC4vVaSk
qKc8XsjbO60enTZ5WQEMs646LccLu4GCFvP5KS4pp9ZaVfIBJ27VotWrRII0eO1J///Oemqx5du3ZVTU1N
OPfW1NQoPj5eiYmJLTmVJKm+3vn/Q9166Uxy1+cvNH5mhBs1NATa5LYXDm6e3Q0aP9CMdcbFuP12Ee
75Q340Li4u1sKFC5Wfn6/CwsKgp2IGDRqkDz/8MOj7t23bpqysLFmWex/4AQBA2wjpisihQ4e0ePFi3XD
DDZo0aZKOHdNstC82NlBjxo1TXl6eCgoKlJeXp3fffVd///vftXlIScHBwAA7hdSiGzatEnnz5/X5s2btXnz5q
B9eXl5WrJkiZ5//nktW7ZML7/8sq644gotW7aM9xABAAAXFVKITJ48WZMnT/7R7xk2bJiGDRvWqqEAAE
D7wAs3AACAMYQIAAAWhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMyQI
AAAwHhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjkyPQAAZ1iWR17vt/9t0fi/P2Vum
BFA2yNEgAhgWR5deml804N7UIKc4YkAoHkIESACNF4NKVi3Q19Unzl9TrNk9UrR72/ubXoMAIYRIkAE+a
L6IA58edL0GM1yRUqC6REA/ATwJC0AADCGEAEAAAMYQlgAAwBhCBAAAGEOIAAAAYwgRAABgDCECAA
CM4X1EgB/gprcgD9OsAPBdhAjwPZcmxigQsHmbdAAIA0IE+J6EOJ8sy8PbpQNAGBAiW/g7dlBoO3xxDI
AADCGEAEAAAMYQlgAAwBhCBAAAGEOIAAAAYwgRAABgDCECAACMIUQAAIAxhAgAADCGEAEAAAMYQI
gAAwBhCBAAAGEOIAAAAYwgRAABgDCECAACMIUQAAIAxRqRFStWaNy4cUHbHnvsMfxS2TPoV25ub
quGBAAAKSmqpT+4bt06Pf300xo0aFDQ9n379mny5MkaO3Zs0zav19vyCQEAQMqKOUSqq6s1b948IZ
WVqVu3bkH7bNtWZWwIjK6cqM6dOzs1lWAAiFAhPzWze/du+Xw+vfXWW+rXr1/Qvs8++0xnzpzRIVde6
diAAAagcoV8RSQ3N/cHX/NRUVEhSVqzZo3ee+89WZalYcOGadq0aUpMTGz5kFHov6bWsjyOHxNA+9B
4/+H1/vRf7++GGSONz+d11boHArZs226aOdyzt/g1IhdTUVehy7KUKpKi5cuX67PPPTpSpUu1f/9+vfzyy7K
s0P9wluVRcnIHJ8cEgFZJSlIJCUIxRmeBD8llybGKBCwm24fbhEI2EH/cR7u27WjIXL//ffrd7/7nZKtKyVJG
RkZ6ty5s26//Xbt2rXrgqdyMiMQsOX3n3FyTEnfFqvbBiWafhpOnz6rhIRY+f21amglMB7nR3m9FsEUJglxP
lmWRwXrduiL6lOmX2mWK7okakb+QPn9tZK+jRAnbtdJSXHNvrLialhYltUUIY169OghSTp8+HCLQkSS6uu
d/4vupstMAH5aAgFbktTQEGiT+ye42xfVp3Tgy5OmXwjD8Mj3LdrRx+NZ86cqfHjxwdt27VrlyQpPT3dyV
MBAIAI4GiI3HjjSotLdVzzz2nzz77TO+++67mzJmjUaNGKS0tzcITACACODoUzO/+c1v9PTTT6uoqEh/+c

tflJiYqFtuuUUPPfSQk6cBAAARolUhsmTJkgu23XTTtbrppptac1gAANBO8IpNAABgDCECAACMIUQAAIAx
hAgAADDG0X81AwDtAZ81AziHEAGAZvr+Z4nw1ulA6xEiANBMbvwsKaxeKfr9zb1NjwH8IEIEAELkps8Su
SIlwfQlwl/iyUMAAGAMIQIAAIwhRAAAgDGECAAAMIYQAQAAXhAiAADAGEIEAAAYQ4gAAABjCBEAAGA
MIQIAAIwhRAAAgDGECAAAMIYQAQAAXhAiAADAGEIEAAAYQ4gAAABjCBEAAGAMIQIAAIwhRAAAgDG
ECAAAMIYQAQAAXhAiAADAGEIEAAAYQ4gAAABjCBEAAGAMIQIAAIwhRAAAgDGECAAAMIYQAQAAXh
AiAADAGEIEAAAYQ4gAAABjCBEAAGAMIQIAAIwhRAAAgDGECAAAMIYQAQAAXhAiAADAGEIEAAAY06o
QWbFihcaNGxe0be/evRo7dqz69++v3NxcvflKK60aEAAARK4Wh8i6dev09NNPB207fvy4JkyYoF/84hcqK
SnRICITVFBQoJKSktbOCQAAlBUqD9QXV2tefPmqaysTN26dQva99pr8nn82nBggWKiopSWlqaqqqqVF
RUUpDFjxjg1MwAAiBAHxXHzvXu3fD6f3nrrLfXr1y9oX3l5uQYPHqyoqP/2TU5Ojj799FMdOXKkxUNGRVm
O/7IsT4vnAQAgkni9lrxeq+nr1j7GhiLkKyK5ubnKzc296L7Dhw8rlyMjaFtKSook6auvvIKnTp1CPZ0sy6Pk5
A4h/xwAAGiePKS4i34dDiGHyl85e/asoqOjg7bFxmRlks6d09eiYwYctvz+M62e7ft8Pq8SEmldPy4AAG7j
99dK+jZC/P5aNTQEWnW8pKS4piss/4ujlRlB6u6urqgbY0BEh8f3+Lj1te3bkEuprkLBABApPtueDQ0BNr
kcfeHOPponJqaqpqamqBtjb/v0qWLk6cCAARwNEQyc7O1o4d09TQ0NC0bdu2bervbs6duzo5KkAAE
AECDRExowZo9OnT+vRRx9VZWwl1q9fr9Wrv2vSpElOngYAAEQIR0OkY8eOWrlypQ4dOqS8vDw999xz
mjlpzvLy8pw8DQAAiBCterHqkiVLLtjWt29fvfrqq605LAAAaCf4pyMAAMAYQgQAABhDiAAAAGMIEQAA
YAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEAC
AMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwhhAB
AADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQg
QAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMI
EQAAAYAwHAgAAjCFEACAMVFOH7C6ulrDhg27YPsTTzyh0aNH0306AADgYo6HyCeffKKYmBht2bJfHo+
naXtiYqLtpwIAAC7nelhUVFSoW7duSkIJcfrQAAAgwj+GpF9+/YpLS3N6cMCAIAI1CZXRJKtK5Wfn69Dhw
7pl7/8pe6///6Lvm6kuaKinH9NrWV5/vc3AQDQDni91kW/DgdHQ6S+vl4HDx5Uenq6HnnkESUkJGjxo2
aOHGiXnrpJQ0ZMiTKy1qWR8nJHZwcEwAAEdSutxFvw4HR0MkKipKZWVl8nq9io2NIST16dNH+/fv16p
Vq1oUloGALb//jJNjSp8Pq8SEmldPy4AAG7j99dK+jZC/P5aNTQEWnW8pKS4ZI9ZcfypmQ4dLrx60aNH
/3zn/9s8THr61u3IBcT7ktPAAD8VH03PBoaAm3yupTDHH003r9/v7KysIRWVha0/eOPP1Z6erqTpwIAAB
HA0RBS0vTIVdeqQULFqi8vFwHDhzQE088oX//+9+6//77nTwVAACIAI4+NWNZlpYvX64nn3xSDz30kPx
+v3r37q2XXnpJGRkZTp4KAABEAMdfI9KpUyc98cQTTh8WAABEIF6xCQAAjCFEACAMYQIAAAwhhABA
ADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQgQ
AABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIE
QAAYAwHAgAAjCFEACAMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFE
AACAMYQIAAAwhhABAADGECIAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAwh
hABAADGECIAAMAYQgQAABhDiAAAAGMcD5FAIKBnnnIGQ4cOVf/+XXffffp888/d/o0AAAgAjgels8//7
yKi4u1cOFC/fWvf1UgENC9996ruro6p08FAABcztEQqaur04svvqgHH3xQw4cPV69evfTUU0/p8OHDevvt
t508FQAAiACOhsgnn3yib775RkOGDGnalpSUPn69e2v79u1OngoAAEQAj23btIMHe/vttzV16lTt3lITsbG
xTdv/8lc/6OzZs1qxYkXlx7RtW4GAYmM28Xgky7J04tQ51TcEHD9+W4iJ9ioxPpqZ2xgzhwczhwczh48b547
yWro0MUaBwLfwPalQCCg1paBZXnk8XiaN0PrThWstrZWkhQdHR20PSymRidPnmzRMT0ej7ze5v1hW
uLSxJg2O3ZbYebwYObwYObwcePclmVd9OuwnNvjgzVeBfn+C1PPnTunuLg4J08FAAAigKMh0rVrV
0lSTU1N0Paamhp16dLFyVMBAlAI4Gii9OrVSwkJCSorK2va5vf7tWfPHmVnZzt5KgAAEAECfy1ldHS0xo4d
q4KCAI122WW6/PLltWzZMqWmpmrEiBFOnGoAAEQARONEkh588EHV19frscce09mzZ5Wdna1Vq1bJ5
/M5fSoAAOByjv7zXQAAGFDwoXcAAMAYQgQAABhDiAAAAGMIEQAAYAwHAgAAjCFEACAMYQIAAAw
pt2FSCAQ0DPPPKOhQ4eqf//+uu+++/T555+bHivirFixQuPGjQvatnfVxo0d01b9+/dXbm6uXnnlFUPtUd+
JEyf0+OOPa9iwYcrKytKdd96p8vLypv2lpaUaPXq0+vXrp5EJR2rjxo0Gp3W3o0eP6uGHH1ZOT04GDBigiR
Mn6sCBA037uV0779ChQxowYIDWr1/ftl11dk51dbV69ux5wa/G9Q77WtvtzLPPmtfffxV9j/+8Q97796
99t13322PGDHCPnfunOnRIsbatWvtXr162WPHjm3aduzYmfVqq6+2Z8+ebVdWVtqv/66nZmZab/++us
GJ3WvCRMm2KNGjbK3b99uHxz40P7Tn/5k9+3b1z5w4IBdWVlpZ2Zm2oWFhXZlZaW9cuVKu3fv3vYHH
3xgemxXuuOOO+zbbvN3rlzp11ZWwIPnTrVvvbaa+OzZ85wu24DdXV19ujRo+2MjAy7pKTEtm3uP5z2zj
vv2JmZmXZ1dbVdU1PT9Ku2ttbIWjv+Fu8/ZXV1dXrxxRc1Y8YMDR8+XJL01FNPaejQoXr77bc1atQoswO
6XHV1tebNm6eysjJ169YtaN9rr70mn8+nBQsWKCoqSmlpaaqqqlJRUZHgJBljZmCXqqqq0tatW1VcXKyB

AwdKkubOnav3339fGzZs0NGjR9WzZ09NmzZNkpSWlqY9e/Zo5cqVGjkiMnRXefkyZO6/PLLNWnSJGVk
ZEiSHnjgAd16663av3+/SktLuV077Nlnn1VCQkLQNu4/nFVRUaFu3bopJSXlgn0vv/xy2Ne6XT0188knn+ib
b74JujNOSkps7969tX37doOTRYbdu3fL5/PprbfeUr9+/YL2lZeXa/DgwYqK+m/75uTk6NNPP9WRIOfCPaq
rJScnq6ioSJmZmU3bPB6PPB6P/H6/ysvLLwiOnJwc7dixQzaf6BCSSy65RE8++WRThBw7dkyrV69Wamqq
0tPTuV07bPv27Xr11Ve1ZMmSoO2ss7P27duntLS0i+4zsdbtKkQOHZ4sSeratWvQ9pSUIKZ9aLnc3Fw9++
yz+vnPf37BvsOHDys1NTVoW2ONf/XVV2GZL1lkJSXpuuuuU3R0dNO2TZs2qaqqSkOHDv3Bta6trdXx48f
DPW7EmDt3roYMGaKNGzdq0aJFio+P53btIL/fr5kzZ+qxxx674D6adXZWRUWFjh07pvz8fP3617/WnXfe
qffee0+SmbVuVyFSW1srSUF34JIUEXOjc+fOmRip3Th79uxF110Sa99KH330kWbPnq0RI0Zo+PDhF13rxt/
X1dWZGDEi3HXXXSopKdGoUaM0ZcoU7d69m9u1g+bPn68BAwbolltuuWAf6+yc+vp6HTx4UCdPntTUq
VNVVFSk/v37a+LEiSotLTWY1u3qNSKxsbGSvr0zbvxa+nZx4+LiTi3VLsTGxl7wINh4o46PjzcxUKTYsmWLZs
yYoaysLBUUFEj69k7j+2vd+Htu5y2Xnp4uSVq0aJF27typtWvXcrt2yJtvvqny8nJt2LDhovtZZ+dERUWprKx
MXq+36XGwT58+2r9/v1atWmVkrdvVFZHGy301NTVB22tqatSlSxcTi7UbqampF113Sax9C61du1ZTp07V
9ddfr+XLlzf9V0vXrl0vutbx8fFKTEw0MaprHTt2TBs3bIR9fX3TNsuyIJ6erpqaGm7XDikpKdHRo0c1fPhwD
RgwQAMGDJAKzZs3T/feey/r7LAOHToE/ce4JPXo0UPV1dVG1rpdhUivXr2UkCgsrKypm1+v1979uxRdna
2wckiX3Z2tnbs2KGGhoambdu2bVP37t3VsWNH505U3FxsRYuXKj8/HwVFhYGXUodNGiQPvzww6Dv3
7Ztm7KysmRZ7eqvfKsdOXJE06dPV2lpadO28+fPa8+ePUPLS+N27ZCCggL97W9/05tvvtn0S5lefPBBLVq0
iHV20P79+5WVIRX00ChJH3/8sdLT082sdZv9w+CfqMLCQnvw4MH2li1bgt5HpK6uzvRoEWXWrFIB7yNy
5MgROzs72541a5a9f/9+u6Skm7MzLTxR19vcEp3OnjwoH3VVVfZU6ZMCXoPgJqaGtvv99sVFRX2VVdd
ZS9btsyurKy0V61axfultMK9995rjxgxwv7www/tffv22dOnT7ezs7PtL7/8ktt1G/ru+4iwzs5paGiwx4wZY9
9888329u3b7crKSnvx4sV2nz597H379hlZ63YXlvX19fbSpUvtnJwcu3///vZ9991nf/7556bHijjfDxHbtu2d
O3fat99+u92nTx/7+uuvt9esWWNoOnd74YUX7lyMjlv+mjVrlm3btv3uu+/ao0aNsvv06WOPHDnS3rhxo
+Gp3cvv99vz5s2zr7nmGrtv37723XffBvdUVDt53bdNr4bIrbNOjyp66+/th955BH7mmuusTMzM+077rj
D3r59e9P+cK+1x7Z5YwEAAGAGTxgDAABjCBEAAGAMIQIAAIwhRAAAgDGECAAAMIYQAQAAXhAiAADA
GEIEAAAYQ4gAAABjCBEAAGAMIQIAAAlz5f6g9XLLcfV2nAAAAAEIFTkSuQmCC\n",

"text/plain": [

"<Figure size 640x480 with 1 Axes>"

]

},

"metadata": {},

"output_type": "display_data"

}

],

"source": [

"data_file['Radio'].hist()"

]

},

{

"cell_type": "code",

"execution_count": 43,


```

"id": "9c7e4128",

"metadata": {},

"outputs": [

{

"name": "stderr",

"output_type": "stream",

"text": [

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",

"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",

" if pd.api.types.is_categorical_dtype(vector):\\n",


```

```
"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",
```

```
" if pd.api.types.is_categorical_dtype(vector):\\n",
```

```
"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",
```

```
" if pd.api.types.is_categorical_dtype(vector):\\n",
```

```
"C:\\Users\\Diwakar mishra\\AppData\\Local\\Programs\\Python\\Python310\\lib\\site-
packages\\seaborn\\_oldcore.py:1498: FutureWarning: is_categorical_dtype is deprecated and will
be removed in a future version. Use isinstance(dtype, CategoricalDtype) instead\\n",
```

```
" if pd.api.types.is_categorical_dtype(vector):\\n"
```

```
]
```

```
},
```

```
{
```

```
"data": {
```

```
"text/plain": [
```

```
"<seaborn.axisgrid.PairGrid at 0x17972a67a90>"
```

```
]
```

```
},
```

```
"execution_count": 43,
```

```
"metadata": {},
```

```
"output_type": "execute_result"
```

```
},
```

```
{
```

```
"data": {
```

```
"image/png":
```

```
"iVBORw0KGgoAAAANSUhEUgAAAUAAAD4CAYAAACpMYPrAAAAOXRFWHRTb2Z0d2FyZQBNYXRwbG90bGliIHZlcnNpb24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliLm9yZy/NK7nSAAAAACXBIWXMAAA9hAAAPYQGoP6dpAACXgklEQVR4nO2deXxU1fn/P3f2mSyQkGFTWQJJWEJCEAgIAUTqThAQ/LYCrQYFZdGi
uFWxpWqt4tIKKAI2VWRdQJbab+3X/qq4AIJiAIWwSaqCkJBASGafe39/TO7kzsdZp9Jnvfr5Usyd2bumXO
fc85znmMsDMdxHAIcIAiCISCiaZDeAIAiCICIDoipIgtBEEQBEEQRBIgRZwgCIlgCIlgkgAp4gRBEARBEA
SRBEgRjwiCIAiCIlgkQlo4QRAEQRAEQSQUbUsQJgiAlgiAlIgmQIk4QBEEQBEEQSYAUcYlgCIlgCIJIArpkNyAZ
eL0sGhpaJK9rNAXyczPQ0NAClu2YhUepD3xQP6jrA6s1K6LvVhqLau9PhEL9Fhnp3m/xGovp3i+pCvVr7E
mVPIU7FfskiLoJGw4BhGGg0TLKbkjSoD3xQPyS/D5J9/3SF+i0yqN/EoX6JD9SvsSfd+pQUcYlgCIlgCIJAqSIE
wRBEARBEEQSIEWcIno5HMPA5mFR3+yCzcOCY9Ljul4gOjI0btMHeIzENHTIYE2C6Ch4GQarN+7D3sN1/
tfKiqy4c1oJtBwFBhFEKkLjNn2gZ0VEC1nECaKdwoksEACwt6YOqzftI6sNQaQgNG7TB3pWRCwgRZwg2il
```

2tzdkgeDZW1MHu9ub4BYRBKEEjdv0gZ4VEQtiESeldorN4YnqOkEQiYfGbfpAz4q1BaSIE0Q7xWKSdWtHJ
MOsoylggoiAe40dp3CpdJxJHe3xWtCYknvSTEolgVGHwa1FWZMXemtCj0/LB3aDXabGSgowlliLiFaQnN
27Liqww67UAjc+UoL09Kwo8TQ5kESeldgrDcbhzWgnKiqwBr5cVWTF3yhC8SEFGBBER8QzSkxu3d04rA
UMKUcrQnp4VBZ4md7KIE0Q7RstxWDitBHa3FzaHBxaTDma9FnaXRzHlyKKJfTpBiKEmSC+a8SM1btNJs
esotJdnFW+ZJqShXiWldg7DcbDoNMjLNMCI04DhOAoylogoSMT4ERu3RGrSHp4VrQnJgyziBJEicAwTIV
UlnM9nZxiwrKocLjcLg16DQ7WN2Lr9GBwuX7oti0kfk99EE0J3xhjwXLasqrykHHdYzL6AqGjUciinQ8ST
bq1N56E2xcXbC40ObywOdx6zulNrXHwNN0gXqWIFKAaInkwvm8l2GwZlPgeOsLrFg6azie3rAHRb1zcai
2AaX98yhAhyBaERTjwnHDK+OIBVZ8Un0SR75rjDjlD2C5tKtVfEk3L5wejk8t2FPQMBnrPtOTZvaW+BpOk
GuKQSRZKINKgnn81LvrT5Sh60fH0dVZTEqK/KxbssBCtAhiFaUxk3luH4AfEp4ZUU+tm4/FnGQW7oFzaVb
e+NJuH3hf39N/PpObZvaU+BpukEWcYJIMtEGyYTzebn3Vh+pw81XFWHZ2h1wuLz+z+q1NE0QHRulcfPz
6wZh9JAe2LH/VIB1PJlgt3QLmku39saTcPsiEX0Xzj3aS+BputExRgdBpDDRBsmEc13pvQ1Nzgb/VwrQIQjl
cXCmwYbTZ21464PDlf7i4Y6hdAuaS7f2xpNw+yIRfRfuPdpD4Gm6QaYugoghkQQsRRskE851pfca9IF7cw
rQIYjwx004nw33/ak0JjmGgcmowwNzRogGfQOp1d54E+6zS8SzTid56qjQEYClGBFpwFK0QTLhf7uuaU
FVhyqbQz9LEF0cJTGzdnzDtSds4dcyTILV2C5tQER6ZSexNBuM8uEc86XeSpl0OuKQQRa6IJWlo2SCaczz
MA5k0Nfa8wyCycexNEe4BjGNg8LOqbXbjg9OKCzRVwXWqMIRZYcdOkQgwtYEPtqfMB1yldQwyAGRML
UVoQeq8ZEwuRCqGPaoJXO+IcEu5crvb9Qvm0ediwgjgpcDP1YTiu4z0Fr5dFQ00L5HWdToOcnAw0Nrb
A42ET2LLUgfrAh9p+sHIYLFzxaeT1lfdOUAy6CdetJfj9JoMOTrcHLXbxz/MWriMnGIA5rh8G9M4BB6BrjgV
mg1bys2r6wGrNkv1tUiiNRbX3J0KhflNHOCdZfB7xFrSbjqMWBr0WGgbQtypGthgEudk8LO7948f+MRqc
63/F4grZuSreY1EoT00Oj+x898d7JiDD0HGD/MKZy3U6DXRGPRrOO0LyIHMMMA5ubxZlGxjALwMD++a
Gnd6wl+V5T5W5T+1YJNcUgogBagJiLkG2ffwQTL+98IMknLKgzlTE/L5YAvWWx8cDvjcwmlMGs1MKu4
N0G0F5ROshYGnyhXhlx6DdZvrREde2rHrxw2hwcOlzdGjAZfV5pL4o3SfOdwepAp4zff3glNlgeAlIsBHqcb
Fh3jf7+S64+YfMayTUTi6LgjhSBiSCIDYiJxg1GTwoogOhrhjotE5MxOh+C6dGhjOqPG9Yfm7fYDKeIEIQLvk
/fjOQe+P3MBXk78Ou+zZzLoQnzweGld9BiJUUh1uCisln1mCSFXC8acNd1wkYkPLB9eJUUVZkhcmQfCVXqY
3tMcg7Gj/tcFHKWz+gd47vfU5PQtuVLng54PsZF/DjOUda9EnyRzRBpBhKPqNi18sHd8Md00rw4qbAKm
nxCljXa0mHAuW7O+PoL0EkSjCzVwUrmU3Fi5oSvDBdauD5pLSAiuuH5OPNe/ux203FEOXRNCqTa21w
DASDNIrYqSnLncLEwGLblyjFiZwHalA16Gweq3q9OqT0gRJwgBSkfPC6aXYvU71SHXd319GgCwYHopHC
5PXANiljkWVpvCKlyfWYJIFSKR3XBtuyXKJUPLcVgwwRQ/NtjQbHP7gzX5tIAuD4tFM0qhYZMXiNZRqjAm
Y05Uk7d+7pRirNIEc7WQdF2/yDWFIAQoHT3bnB7J67u+Pg2HyxN2VbJwjYjORZWm8KKfMmJdCUS2Z
UdF9ND08cBTMJcMmxODx5+6TM8+epuLF+/K6BqZ/UR31yUbBJVhTGZ7hfJmBPI5vjSAisamhwo6p1Lc
3UQ6bp+kUWclAQoHQm22N2Kw/naDqSi89lj4XVWLAScfROEPEgUtkNHRd65HYyweN0w8MGUqKZD
FosnTUcLOtThnni4ZKHONfYPcjUt/+xmGi3kGCSMSfKzfHzp5ZAzwD1F5wJb1eqk67rFyniBCFA6Ugww6y
P6vNCojIGi/RYWCMFFWVDINKVaGRXOC50Og2yLAY0Ot0hY9Th8uLpDXtQOa4fZlXRAINOEzeXDMW5xt
z+x2lquBoka06UneM5mqvFSNc+IdcUghCg5PZhMcYu00q0x2jxOBbuiNkQiPZBPGRXblzyOb4ffukzWEy
6uLlkWly6kOqaPKUFvrmoVZMKrgbJnBPI5niaqONJ1z4hRZwgBlj5JJoMWiycUYpbJxejocmBqsnFWDijFCZ
D26Dmjwwbmp2qfRjDTZ2WCNT6zBJEQhGPUT78GDQZtJg5qRDlQsrwxJwRWFZVjpmTCmFX8NOOxrdZ
w7JYcGOJaKn7BTeWJDVQM1EI50CxZwDE31dcTq5uv2EIHb5vUtljUen6UNK1T9r/lpogwkr4JGh3epCdY
cRLm/Zh5dvV/veUFVnx/JlJuNDihMmoR01tA+569kN/MJUaH8ZUPUZT8pkliFQl1pk8LCad3y9868fHA6p
dlhZYMxH4JQDEvzWvs06jsOiGaWwOT2w2T2wmHWwGHUdQgkH2uZAqWeQKF/xYllyeVjsO1qPXz73
ERwub9LS43WUzDXhoOU4LL6xFA4PiwstrrToE7KIE4QA3oJ1tjUQJfjbhJfeFfdRXPPuPuRkmbDhH9/gTK
Md980e7rfUFFySg3VbD8haSIL5GE14Jjpt0iLLknoBLqHrIXdtsx6LeZOKcbWj48HBGcCvmDNNe+2VdM
UWr9dHMKqWclnOdewLDL1GnTNNiBTr+kwSjjQnkdWjusn+gzUVDSNVcYVhuNg1mvxt3/V4OGXPgviY
hPLyqrhtjdRmWvSCS0DXNw1C907m9KiT8giThCtiFmwHpt/mWiOYaDVR9HpwZWj+ohayyor8uHweGH
Wiu931WQ/4RiGrB0EEsaxGjcMx6God27AaZiQvTV1chi8MOiOAXPHsqpyRd9mi843LyQ7K0gqw8+Rpxv
tAfOrkOD+FBrlvIXjsy7WDrWkiizQupNYSBEnCEhH5zfbINMVSlnLAOC2KcUB9wie3OSOFINIUialdEJq3N
wxrQRujxct9vCUC7tDfg7guND7udzyVms+jVoqZAVJdbQcB4OCciuWli4efRvP9HhehVOUeMhC8Jpk0Wv
hRWg7aN2JL6SEwSkLR0GvfwCYDbpQpRwnuojdWA5DgCjQFTzbihtwWE6rNu8nxZogggDOeXr5c0HcN
XoPtAwQEOTE1kZenTnsUCr4OqhFKvBclzl/ZtMdF47421hbS8ox9PoYfOwAcYMhyf2fRvPuj4WZ2JlQWx
NWjijFJ9Wn6R1J8GQIk4QkLZ0HKptRGmBVVTZLiuywqDTYlIVOVxu1l+Geuv2Y37fQYfTgwyDUVI5Wlf1A

Koqi/GiiiJ+/Zh8VB+t93+X8HO0QBNEFKKrcmgxdWj+2DbJ8fxleA6n4FEJ6Nc8H7KwS5qJoPPF5zjODww
Z0TA+FeaN8x6LcBxaVuAJNFIQPA15+HahtCgulvnzIEJoM2ZP7kbbKiy7lkKLWDf66RYFM4eYmlEhtWH
OzTbQxTAKkiBMEpCOZW7cfw9JZw6HRIMSP+45pJVi/5QB2fXPa/3ppgRVLZw3H0xv2wOHYwmLSwc1y
mFyRj6tG9QIR1nv36BSiAO+e7EsUDmun6hvjC3QBBGKIGrFexXfaQOLypY+sRiOUwGLZZVjclb/z4coA
Dy4/+Ft/Zi0cwy/z14gtOopWrmpFRDLp5mxsRCLF+/M+D9e2vqsHbLfsn5E2jrW45h4PB4oWE0WltZ3iU
j0qrGarCYlcsTgmpDatalyoittAoJwhIWzocLi/+tesEFt5YCrvt47eUmAw6vLx5f4ASDrQtupXj+uHld40wG
nRY/U51wKQnVNYH9M6RXCiqj9Rhyrh80WvxWqDFLEIEES7JCvaSGhdy40yNpS84liM7w4A174a6jvHj/8
pRffD0hj2Y06UYt00phs3hTriFtb0hFk+j02pwd2sKwWD21tRh+uUFos+d71veH7qgVw5qahsls7IIN2pycT
3RyH2GMXGylVhVetSRcQW6lWiQyE1UcpZOuZPK4WwY8EISsPbXJ4QJZyn+kgdZlxRgJ+MuETUz1uorC
tZIMSux2uBlvNjJwi1JDPIWEqxyYwIj08TZ8k0wOZHjY/w+Q30kb65KO2fBy3H+b+bA0J8mRdMK8GqOFh
Y2yPCZwAA9c0uSdcTADDoNCHy409btAUItq7ID2ujFtwOxCC4XstAtbU92o2ulEkt1qWKiC2kiBMDbQWJ
UszSkWHUla+zGY2NLQHfpeTbadBp4PJ4ZZX1KePyYVCwOGdaAo8r47VAK2UYWDpreEzvR7RPkp0FRGp
DHTyOggN0qC0/jNM+pDfKjf/LjPWAhuliwsbNa49UtZr4WYq2o1arOReTYGeWGx0pTasW7cfw7KqUaK
umLQxjB+kiBmDarUTZbClQytSS4FjGJiMupAALaFlxmLSocWuUP4aQPdci+xxZPdcC1beOyEuC7TQqml2
6IDQKwcHTzSiBoeeb3YiQ+HYkIBPOBataKxf2wuNDm8kq4RsSYVsoAEKzNGgxZ15xwxtfQpKYAZZl2IBV
Np/gm2sKYL4cpnLN2W1Lj2iFmvgcDNVLQuGbGUe6n2ArFT+KU2rAP75qJrZxNV60wwplgTHYJYTZRi1oj
gAE21VTG75VgAjsOMiYVgWfGgLG3LRxAyy14an6HkBa7Gxl6o+p7E9KEY9GKxvrl9HJ4bsMeUctWvFxEG
i3FJoMWleP6YUDvHLjclLysTy7jvagHu5Gs2LDHf6ojHGelBVbMnxq+pS9c3+5U2KDEg3DIM9ZuSxwG03/
KPVEhch2tS0aist8l5Sh4bBn0GrhZDgaVxT2VrO/pujFMR0gRJzoEbfm5fZPXoD65yLQYoNUyaGpxqVlQpK
wRwQGa/AKguFgbtNh3tB4Xd8tEVeVggANsTg80GuCHM82lJkxSbsHTQLxwRPWROJAM8MSdY3CmwR5
g7c8wyx/tE+pQsmgmtMf4Kh4sPctbjUO1ZHDzRIPpeOeuX8D7BC/aZc3Z0y7HEpVR6dobBn87TZNAiK8O
AV/9xMMD/NhabgXCsqma9FgP75uLpDXtQOa4fpozL9ysuDU006Bn4NLowCLYo8n1c0j8Pep0Gdrc3oE3
tKU2hlwNsHt/vWr9VutbBvBuGQK9pm1NzjQanG2y4alQfTK7I988tkbotcQyDVRv34eCJBtHnqhW8T0x
WhPMznx0LCF+hBxKX/Ua4ji2dNtykonO4Y0vO+k4kDlEiQ6BL9OJFvfNHo5/7jiBol45e01/D4pOulKTmJ
xVq/plHaoqB+OqEZf4J225ANAF00rgYTI89NUPiXmNb5pUiM5ZJtg9Xpi14VvJlJS9qsnFkr/jq8N1qKzlx5O
v7va3Z1nVKHTKNMLjIM9zSyijZBn9scGGH1/6zP+a1CmFkhWVv0+sFmw1eBkGaza1yd3MSYWqM1GEE
59wrKrCcSjWB5EqH7xFS313X7JPm4vaQrrztwnwtu+LFDLqsplZflkfQu2fXlcC6aVgAnks0dFcirg8HhR0Cs
Hkyvy/T7ex0+e97sJrlp6ObRaDdblylpwfuY3ajOuKIBBpwnLJSNR2W94OZFKx0mFd9KT9Bj9BBElZr0W86
YOWdaPj6OwV05Ek5iSVcvh9CAzyNeQATCmpCcmjw201oBh8NLG6gAlHGizxowt7QlRZ3MEv1RZ2WuZl
K9QCwOXqo/UQaMBBWvGCCUZarYFPhvhaUtwVgc5Kyp/n0Qt2GKbv2hTBqq9D/99cr9HTRBcJDACB5N
Oi5UKbWoPaQq9HPDC23tVBzi63Cz21tThq6P1otUag2U73FMBDaNBTW1jglwJlXun24u/bD4gK/uKchG
GZTle+cWF8HIUj7FFJl+kK+Lnzp3Ds88+iw8//BDNzc0oKirCPffcg+HdfQv/jh078PTTT+PySWPo0aMHFi1a
hOuuuy7JrSbSDYbj0P+SHPzhza9QqZCqqsXlRYhdJFWE6AveAzqcy1Yt+VAiM/1Y/Mvk7WuTx3fdZotE5L
qLLhNYseuSsqeySjv9BlcuETBmrFDSybEgsak8sl7vCxYjUbgylmI/x9lBdsFhadSqdSGcQ2f26PuKLGU3F4
WQ71za6wglVWgorlFJB4HcOr9f9OhKIWT1qc3oC2KwU48tflqjUKZVs4NuRcj3zXWJxutGHKuHwU9c7x
W8GFyj3DMKI+30Dgc1ErF0ruUPHa7AnhFf7/nmmWfV/wpiZZef0JdSRdEV+yZAnq6urw7LPPokuXLnjtt
dQVVWFd999FzxHYd68ebjllvw9NNP48MPP8R9992H3NxcjB49OtINJ9IMm91nbVSy5Jysa8H7u07gzmK
IAQNEzqpVPrb9CKWMSnXgmDLpxCTQYsunc0hBUOCj9+ljuhvnVws+/tMBunfUVpgxaHaxpDXKvHtmn
D9lcPteyBUZkcM7AajQYdVQcf9vlzw91GS9Ra7G5as6H2TxYi0u+ZYQt4XrqtMuEHFyfC1Vuv/nQhFLZ4El
2CXDXAstCI7w4hlVeXlZjDKlpp3udmAUwGpec3v4qlgD3wdh6YWI8LvUS8rat2hEuFzreU4X6C/DMJNTTL
z+hPqSKoiXltbi08//RSvv/46Lr30UgDAI488go8//hjbtm3D2bNnUVRUhF/+8pcAgH79+uGbb77BunXrSBE
nwoa3BBv0GtGlcZ54yKDX+I8vF99Y6v+83PHj3CIDQnwgAekASDlrUuW4fli/9UCI24rQxxuAZCBfTUmD7I
YBYMQzDRRaMbkiH0+9tifkcxSsKQLDwMVB1gc15CMyMnT9mHw8vSG074FA6+Olgd1wy+RBaGhySga
+LZpWgjunleB0o132JyidjqhBLJ2nTsvg6PfnQhS1cFxl1ARHB1v7k+FrHY7/dzoHxwWXYJcKcCwtsOL6sfl4+
KVPfVmkCqU3ToAvxzt/KiDneiTn4qJhgHtnDceK1vGTnWGAI+UUU8yqIV658f0b+GYXWtwsgTGG4kpj1oY
WKeISbmmTn9SfUkVRFPCcnB2vXrsWQIUP8rzEMA4Zh0NTUhD179mDSpEkBnxk1ahQef/xxcBwHhon+
SJXoObj1WpQWWHH0+3NYVjUKb35wOMS/cFnVKBw4Xg+g1U3F6UWe4DukrFp2l0c2APJnVxbBoNfA5
WZR2j8POdIGIA/uhl1fhxb8KemfJ+tOcGasDcvX75K0DK7bcgDPL5mANe8GKnulBVbvc9JMirN64DzW1oZ

kGzp534Oj350IWY7liKwVrBuFIGFQfrcfHX50M2/9aTIZMBh1e3rJfVFEpLbDiYmsmnrLrHLRaBnqtBi9vPiA
b+GZze5Ft0qFbrgVlhVZR2SwtsMKols2mUj+IWShvv6EYv3rxUyyaWQagTVFT69vKMQxaXPLB0cHuOsny
tW4P/t9qCC7B7nB5Awlc9ToN3B4W+47WB8xJew/XgeXEN058rQQ+g0+wm4/QYNI5y4SVb1eLtm3v4T
pMn1iA++eMAMdxEGXb1yFB8KlpZlU8l3iknozWSq3WJz0WbSe3lviTVEU8Ozsb48ePD3jt/fffR21tLR566
CG8++676N69e8D1r127wm63o7GxEbm5uRHfWycjNrWTBXaCDJWtBfSqQ+8nM9/0eZwI8Osh8WgFS3
Ew3DATZMK8ePZFrz178MhChQfmFic38X/mt3pO3YO7ge9VodsgUXl7AX54+kLNjd++8ou/99DC6y480Z
f6XihMI5aYIVWl7/B5N0NpCyDDpcXF1qcWHxjqb9fXKOL5LkLTv/nxBSix+ZfFvB3WZEVc6aXIstiQJNHupR
ONMiNRSD1ZNLHLAavfrsbskinwFH1QW2S2pRtDyhuZWfSPhYkOsizeM74ezTQ68+cFhFPbKEc1EIhb4lpNh
QlZRixlXFIllQq2WN00qhFGnER0rauD7QcxCuW7LAVw5qk9lykCTQX7JsTk8MGYZsXrjPlw1qo/se3Vajd/l
oazlijunl0CvYeAlkY4cOXkTm2t0cqXJY9SmRKGOl6aWYXX3tob8Dutnc3lZjCgxe6Gyy0+R/DuliHuSNNLY
NAA0Pjua2tucycJdmN6YM4I2bY329y4YHPH030nJYPg/Slmw3guwjaJXnd4kN3ZFPK61LokNW6Ep7Bqx
qQOCjjLSY9Moz82sdE1XYep5eT3DAYI504EkCqrRIKJN1HXMIXX36JBx98EFdeeSUMtJgAh8MBgyHQh4
v/2+WSFzA5NBogOTkZiu/Lzo4sa0V7ltX7wJdOa2/IArhzPlo1hFOo4HFrMMf3/pK9Pv21tThpz8p8v/Nl
8ZW6ocWBV/c4MObr47U4cVN+3DX/5RhzrVuNNvdMBI0MBu1kkFuPEI3BalAvkyLAXm5GcgD8P2ZC7jj
9/8PABQXM6Neixfvn+jzCTfr0SnTiCyLb8zFQxbUjsV43T8Svj9zAXsP1ykqig6XB717ZKv+3h/qLqCod07AK
cWh2kYc/q4R3xxvQPWROtIAY6EsZGUy/P3VPS8DFUN7huRZ7pGXgbwIM/MAbf0gxt7DdZhckY+3XN6A
9i6rKpf9zgyz3qfQtn5eDo2GwXO/HA+GAbIz2uQ0VgTLm9xc0z3PjKWzhuN8s1N07KQDasfi0InD0dkQlv
DjewMI9Zs2odV77RZqqVO6uTmFh7hPBrsxqQmOLRLJ1OIEs7Dp5i9YXy/sJ6L0tyelWEI6Tc5WXXF5pE9P9
9bUweFhcXHXLMV2XbC50NLshMPIQVaGQbE/1bZd+P3PbdgjuWfYOMt4yst3qqwZSqSmlv7BBx/g3nvv
xbBhw7BixQoAgNFoDFG4+b/N5sg7mGU5NDXZJK9rtRpkZ5vR1GSH1xv7ohfpQDr0gS+dIrlh4YW39opa
FnQANe55y66X5bCsqhwNTQ6YDT6Lpl/6LQaycCl0glrWJGTvL01dWhucSPbpEWWwFdXrwkvoC84IK+s
yAqTToPGxhYAwAVB0JLSYmY26pCh1/gDMz1ON5o8XkVZUKtMB6M0FoHUk0W+P5X60mTQ+Z+BGpqa
XaJK9rKqcvzt/RoA6ILG8c+/qcm07GwzjBrg0kRgOWsb/csaDk2rPYFc0EhGE7s8FqpgqFWo/HLvdx7Swus
2He0Hke+a8TiG0vhdLjRcN6heCqmBjF5UzvXBI+dxIS4c8VrLPL9wnm8yDJqYTFo8UeJExEg9KRObG4J7h
+Trs330DiNSUkeDtU2lr9nJ9nf6HB6wn4uwjYFEzzXAsqyUqUQTH+hxaU4LtVaqSntu5AmR1uWHLGYqqZ
mV8q6K6bKmqF2LKaElr5hwwY8/vjjuPrqq/H73//eb/Xu0aMHZpw5E/DeM2fOwGKxlCtLeccoh0fB6ggA
Xi+r6n3tmVTuA5uHlc+X7fSI+r8pBajZnR4sX78LZUVWIPb3eYjL9QPHMKg7Z0dlqwUv2AWgsiJf0t3E5nCL
po8TO+rmvys4oE+oEPKTMedlwTvLhFkKWSP5O+MIC2q/M1Vkke/PaPpS7nuDESrfSso/H/jGeVI4W8XK6
2XBeX1pCvkqQaF8RlpSsFvXHEuIElB76jwW3FiCFyV8W881O/2v8cGAGgYhPujCceD0cgGFHlTfF01WCK
G8RTrXpBvhrItlyfRJ8UhfOeODnvuBNp1xwKC8P982Wr3dgMekimkPk/LGDx5KSrLDXK1fplGtjuAGY4bRd
CJ8J5FFwWJNqqwZSIRdEX/99dfx29/+FrNnz8avfvWrgADM4cOH4/PPPw94/86dOzFs2DBoNOk/6RHRE
WnZaD5oU86yAgQewfnKOovn9La7vWhqceP5N74MCYA8VNulpzfswd3/M0y0jSajTjSXspbjSGB6KWxO
D+wOD9ze0CAowDcZ9szLwFMLx0oG0sSylDPR1p+x7kupoD+h8q2k/AsD3+KNYPciQYtF00pgEwn0kkrjZ
za2LUI8MOBj88f4qycKx5TD5cXMSYUhSjgQ+6wQ7alEfaxQ6hNekS4tCBwPavNxtwQFLguDQ6eMy4fJol
PD5QmQh4YmR1wCZ8NJPamm8F50bQw3ADPStJIUxTNxJFUR//bbb/HEEO/gJz/5CebNm4f6+nr/NZPJh
Nmz22Pq1KIYsWIFpk6dio8++gj//Oc/sW7duiS2mkgVli0bbdAwuGlsIQBpywrP3po6NJx3YP3WA5IWN5v
DA4NeA0eQP2zAPUUsmaUFVnxSfdL/GeF3ehngnw6Rt0jU1DaGKOH8+/Nk0qEFR9hHU8qZCOxPoWLA
wWcFtug1EfWIVCYEoXKhpPwnSgmXa29pgS8V48tb9mNuZbFouj6pNH7Byr3D5UVTixPL17cFogtJVIXB
9lKiPpYonojkWvDY/MvQLdcCbatcpOPO0Ok3gE/x5YVWTGmpGdAFpXSAiu6dDJj5hW+uT3WhZPUpp5
U6he3l8Ud06RPhZTaGMmmMJk0mVTFM3EkdfZ4//334Xa78X//93/4v//7v4BrU6dOxZNPPonVq1fj6ae
fxl/+8hdcfPHFePrppymHOAEgirRhHleunU3+ADYxy4qQ0402WYubxaTDnkNnZC2VDU2OgNekIP7Vm/Z
hwfTSglzkWwNcIIgeY1XKmfAh259R9KXY91r0WpT2z0vJjZQWwMwrCjD98gl029whFmuXhw3LYiam3
MudAih9baws1R0IRWE4KPWJxahFJ7MOTKsSHq5LhVKKPg3D4LH5lwXI3e9f3Q0AmDulGFWT1t1jhl7Pp
SKdlUfqfe5aE0v9VfFzcwwKTTgFPhz5yoTWGkVTyJ8GE4roPNHvD5DTU0SAdD6HQA5ORkoLGxJS38i+JB
uvSB12EkJ2ol3zX+iNTLcrjr2Y8k37esqjzAlicMXMkw6dEp04A//f1rXFneJ+Qlr6zQivnTSnzlyDkODBiwHlG
C06wLleDjxpCCK388Z4JWPzMH5LtWXnvhlRaINTlgtUaWcyG0lhUe/+4wTBwsRycbi8cTi8yzHqYI7R4R0u
4+XwTOW82D4szjXZjzXQJq/htN/FASfrW+Bys+jSyQiDXodXtn0dcoJ1y+RBuFtm7EYyVqT6LZq5JpHEayy
K9YuaPuFL0jfb3bA53KLFdQDpZyUINzYPi4UrPpRsb6LnSSFi/Si0vjhcXn/71I5TYT+4vSyqj9SH9GNZkTXmr

il2D4eFK/4jeT2Z/SxFqugvasdixztPI9oV0ZSN5o/rOlARtex0zJi5qRCbN1+DABCAldMBi2WVY3Clu1H/enn
3B4W3bpYcPS7c7jr2Q8DPheSTASn+rLZyR81FWAZBmfO+fJ3i7mBJFr5SsWqjDaHRzGTizA3OG8NNRm0
mDulGEW9c2EXsVo2tbj8yr3JoMX9c0ZgbGloCsZMkz5hlup0L1EfD5T6RKrgk1h6Q6l5TUruk+G3r3YzqeU
4VE0uxpmxNtHYhndbp6Yf4xXno7aKJxEx5plgTaU+0CoqSr+tDqz9FUe9cLJ01HMD+OBeITdCtXixfvXNzpx
RjQO9c2BxuZGcYsObd/f6Jc+akQtGAI+ojdWAY4Ik7x+BMgx0GvQadswz+QiVidER/1EQhXGhNRp1o4ScK
UmrDYtKh2S6fwsxi0oco4fymVOjjK9zgCGXc4fLi96/uRuW4fujSyVd8JK+zGb27ZoJhWVUVBmNFKm6Gk
o1Un0i5okilNwx3Xku033741TA52ZMite2T60eNBlixeBwALm6bQrVVPInloRWdSFtiWXq3zbLD4nSjDQw
QYMHgF4+fXzcQr7fmdBbicHmx8u1q/PGcQAAV1AKK7mAl68O+wq1PNnq31hWZMWyqIFyvn6naLI5s
kDEh+CFdIlVWRxEApS8mHWA9HQ5JCNj9BpmYCxOcyLg1jQpjCoWbgJkvKr5yCd6YiP3Z3uOkNw5vXE
um3H65/ezTtC17XAEY2Swom+zZC8VwT6DQovpAiTqQl4Von1Cjtrv85/FbCiuGzQAYsbdfJuhY8+erukAq
Wagqx8PAT99wpaxlWw3hMfrHc1KQSan+X2EKrxuXCn5e7nfafEgzHYWj/PPTMywSAkPiImVcUoskWWP
hHbRaGcKxwwVZZLxcm9ZKIjV6GwWmFojS61vLjk5rcpbaBdNKAMRulxZuykCl9kn9XrF17RGFarQtdg/
M2ca4zdd0GhQ/SBEn0o5wrRPhKO2KfocK/tt8msLgdIVqyJML2VtTh6rJxVh57wRVC0kOimD4R66pSXAfG
A06rNu8H7u+Oe1/j9TvEltolZ4Zf7TcXvovUjQch245Ztw6eTC8LAeH0+Ozgh+pw2/W7cTDtwYqEmo3OJF
a4SKxXhKxg+/yRX5su/rnGnEH++ZgAxDLE4yA09DvABWxXBMqvVHF5uHpXLpB+PIQjePAKBUILbF4cYb
H9R0mPmmPUKKOJF28EpT50wDFs4sQ5dOJtgChmSYdKg/74DT64WpteBTuluykt+eTsoKgYUnHJNTXn
mYGwON/lyDZITvFxAVDiZY5T6Jx2QCmaqrMhH9dF6v4sP/7t8Zabb/CrFFlrZ4jmFVpgMothcXpxubMHki
nwU9MrxZzFIJaXPYwF2LwuO82XscThjb7W3uzz+oORg9h2tDziiV7vBASKzkwVivSRiB9//Bb1yZoc8D8ui
k1kvK4NqTzItOg3MWUbf91sSN0HoG3sL5pWAq61nWo3eErrQoZZJzsPC9t39oJT9J4tTnG5VbN2pNJ8
Q4QPKeJE2mFzeNA504DH7hiDlzcFCMlcuf0EgBtVS/DWZSVcsDuPVInW8qezwseXHhFTXnmYFRZXCfu
RVE7MavpH702taeJcIPC9tbU4cxYG5av39W2UlostJLfcwqtmDulGC8HWduDsxgkU+njGAYXnF60nLmA
P2/7GleOEkmKbFzi+R0Rc5iuHX7MTx393is3blfe2vqFKuDRuvbS1Uw44OXA74/cwEXWglrAQfLC9//cuP
n+rH5MCjIVTgGBuF7l1WVS85pB79tgtlDSDVWJcOFkr+3Ua/DKkHtB569NXVyt/UAqiQl8aLEb+FnhR6kf
DB8P2o0gUWKgtcO2mSmL5RHXIRUyUGZTOLZB2oWern32DwsfmywY5tlwBfgm6AWzSiFhmVR3+zCfS
s/kWzL04vGlfTGORsSGU/dn3dpmSNGNgNP72qCOcuOOH2sMjJNkGnZVB/zoGuuWZ8/vWP4AAUXNzZ
n67qyPfnwAAYVdwDDqcHGWYdjHodHC4vTjfkGXWo/bHC1i/9YBoUCZvjV4pomTy75l3wxDM//3/k/x9
SjlelfrnqYVj0b2zKaXziCvIE37ul+Nx+qwNJoMWLIDomQZoNAxsdg90Og1+OHMBJf3ysHJjdchCy6fZK7gk
By12N3RaBs12N/73sxPYffB0yL1KC6woEvHAP7VwbFvV0wTBKyUFvXJQU9ulot6+/0spvsLNWqSnK2LPID
jffoZZ39p/LmRajFjzbxmxcvNzRovdg5YI8IXzSMlbusQBxGMSsnFhdNKsH7Laf+G1GTQ4vcLK3D2vB0uN
wuTQQsPy0HDwD8vds4y4o1/1eDn1w6CWSfueMExDFZu3leDjxr8MiRMWzwmTy44rvVEC8ALgrY9MG
eEP/BdKIMuN4uuuWa89o+DkvOpmOHCL1cODzxB+bt5mXW6vZJz0MxJhTjy30bJey6+sRR5uRmoPdUk
ma/bZNDi+V+Oh9Ptxal6mz8dYrB8J2O+SUVSRYejPOJESqJmoVd6j1mvRV4nk6hiAfisLzanBxkGLcwmHZ
64YwzMRh04cNhz8DQ2/ecoHC4vTAYtsjKMIYouv8DMuXyGwuweWMw6OF0s/vLewRBR9g3j+8Gg1WB
M6UV4efN+/E2QUaW0wlqbjhUi06BFJn8cz7LgA0J5q35R79yQ772jdUGweaQzD+yqtYPTLZ7ikEfj+tceS
ncrWUBPn7Xh+Te+xp1zRsCk14Y8x7JCKwb17YIF00qwKiiwqqh3LnKyTLh/5cf+BW9ZVbmoEg6EzoMlt/+
ivfaEpwOTK/Lx1geHMWVcvroS1QyD6qP1mFyRj6tG9QIY7JVOV4lthsIUhcJ7C8dxOP7fSv2iNI91pBb3jh
wHIHbiZDJoUXBJDs402nHt2HxcNboPjn5/Dv0v7ow//f3rgGxDvOX2+Te+RFHvXlwt7YmrRvUBGA5SHtB2
txcHTzSlYlBpgRUD++Ti3j9+jlF9czFvagkOnmjwX+ddn8RkUM5aLmZRLnrz949HI6Whdmgg4ZlZecgpeDk
FqcXeQAYjNJW94F9c6HXMPBqGrw/eR4Deucgv2cn3Dd7elBCng7zNREKPTUiYaj1R1bjamF3KgdV/mnb
1yEL802TCIFwSQ5+/+puzJ1SHHJEyd/rxdZ7ZXWgdVq8PLmvSGKf01tA4z6QnxzogEff3VSNEe4RgNfmw
Wv250ezJxUiOEDuuJMgw03Xz0AP79uIOrPOaDTMjhU24j1Ww/g9spiRSXT4ZRXxE1G+SGuKsVWiiNcflit
YLwFburl/VF/zo5PqkOf097DdXjpXd/zDIQO9ThU2xBSeErTBpxwlb5YKhtCVyO+HWqDI10cQuR4aKEVz9
w1Dj/UtcDm8sliEVgXnCFCTYrCYP9vqXSDSv2i1jUp0uwcHT34M9h9TWqTteDGUmz9+Hhlyk/+OcydUoy
BfXlX6b6T2HPwR9xeWQyluLaY9VrYHB5JGao+Uod1Ww74n+uad/cFuJ/xrk9FvXNCPH9uiSp577m3f0o
6p2DI981SrQ2qb+nzyVFyWALppXgq6P1yM02BZWADO2fB4bjoNdpUVPbGLlXWTPROP6160RKp7ZNLxOI
ZECKOBEW0QwmNf7IAFRZLDLMeTl7Wcw6DOibi4MnGvxKFD8hJy3t6a/qJ0wPGHyvZqenNcWWV9T6Xj
muH95stThKWef31tShxeUNyAyQIWEUnUwrK/Lx1GttSt/sawYqWjjMRp1sII9Ww8g+M3UptpTi9pOLya
DDY/MvQ4vdja65vmqmwN4sK7Li1usHo+6cXfY52d2+0wq704PsDAM8Xg69umXhkarygOPoTlu87BlaK9

GFo/TFStkTbtykMvgEYzHpWDEM1mzcF9I/Xx2uw9rNB1DUOwdP/Plz2Y2B0MrtZTI1VvhWIFwf5PpFbl6
pPlKHWycPwrihPSNe+BMR/JnKSkqwMUBKQe7SySSZd7/6SB1uvqol9/xhOwb2zfWPDa9Gg9MNNjTb3
DDoNdhz6AxaqT53HrGsGyVuSW098AN8zmFLRDzMnFWJA7xy4PSxGD+kBVkQG1QYKcwyDFpcXV43qg8
kV+SfUlPzJ11sfHMBqTfuwYHqppEFDab4wGrT4748XoNMy4DgOn1afDBkHpf3zwDEMxhQzO/zfC2eUg
mFT05W2I58oqYEUCuI10Q4mNUFUar7DnGVEi90lq4B+Un0SR/7biPtmDw9QyvgJtGuORTI4hqfF7oHD
5YFBwirMLxTXjO4j+z3NNjcu2FzommOBhuNEFR6xwEKbw4MuWUbZ4FGW4ySDR28Y3w86rUbU9Ub4
zNK5WIOXYbA6KEhKLgjyzBg73Aq+gqcbBxj6tT1YOms4NvyzJiSw8bm7x4PIWBJ1OtIthJ55GWfBswOI7
Ak3brxlUck4EmBgC8krs7y7jdLGgLdy1ze7Qq4JUWt5fHHTPhRckhMQFCu8zsusHE6X1+c3G6E8xzv4M9
WVlGBjgJSCrGT5ZTlgeXk/9ziYRisertaNBBaq2Gg9Mv5+5kMWlhzLaj56FhAu8TybysGChT08HKCKjcn/v4
+F0GPZHVmiOneWPLpvlN464PDGNqad1/oZsN/P5/pSW6MOI2elAzU7OgnSmqI+Kl9/vnn+OqrrwAAJ0
+exPz58zF58mSsWrUqVm0jUgilwcQxylZTNf7lat5jd3vx+1f34LYbilFWaA24zluWt24/hr2H67Dtk+O4d9Z
wmAxtyrTLzcLmcCvey+HyyJYo5idiJSuL2aRD9ZF6rH13P2wK1eYG9M4J+K28xdqnMLVRVuT7nZ9/8yP+u
eMEinrnYFIVOR6YmWlLqspR1DsH5y448JKE603wM+MVqLxMAyw6TVpMjHluCX//5Dgemz8Gy6rKMX
NSIbQaRvE5MZCv+rh2y36YdFpoWsuqiz2TO6eVwMAg7P4Ld5PKMQxsHl8wss3D+p8l72oE+LitVFbk49s
fzqOylh+IBYHtHVpgxvJ8vHwS5/igk1+UxpccMquEJsQTuyB0iZEOCaCaas+GHlblLCYFE7fovj+WMYr8UYo
U4C0wq00vjLNeV/cwlt3a2obMHNSoX/umlyRj2++bcBn+0+iSyeT7Pfx96sc1w/rNu8PGbNiPcePieCxUFZ
oxayrB+JgbYPknLL14+OoHNdP9Pe22D1+g8bKeyfgqYVj8cd7JqCodw6Wr9spek/hWgX4Tp/e/OBwwD14
9tbUocUuP0bVGLKSgdqT8I5MRDPI5s2b8eCDD+LWW2/F0KFDsWzZMnzxxRcYM2YMXnrpJei1etx+++2
xbiuRRGJhsVPrjyxnATYadGhscuBcswsPv/gpHps/Bm4vi9Nn2yLJhVaLvTV1mH55QYA1w6DX+K2+cvfic3v
vO1ovatHgJ2KIPK879p9CTW0jKivyUX/OLttHYv7FYhZrgMG9f9wOAJJBcRVDL8lf3vxK9D7tldWVXAlt/uh
6+fpdKC2wonxwd/z3VJNiPl61VR9jfYoQjjKpZEEVWuae3rAHleP6wWzU4rYpxf484u7W7A/8dVah3cFKlp
IVOJzy3koKhJylVWkcR5sO0cswOFR7Nm7pFtMh53mw+5qUwq00D+q0baqxUjDm7TcUY+eBUygrtIr2j3
B+LumfJzpmxdrjChnx9IY9mDulGHOuHYi6Rrt/3XjJzWYfe1AVSdDwbUf+PEpjHvgGAZHvmvEuWaXf5xN
GZcPk0EHh8sTslYF3yMYk1E+XsessGFMFpROVJmlRvif//xnTJ06FUuXLkVdXR0+++wzLFy4ECtXrsQvf/ILb
Ny4MdbtJJMLNkK5Ky7vM8gw3G4Y1qJpPVg3Zb9fgvVuWYXvj/TjNNnbXjy1d1Yvn4X3vrgcEi6smab22/
NKC2woqHJ4VeaxNoTbKngrSjB7zt73oGyQquklUX4PbxPpZPChCPIxxssQY4OFxe/8ISbBGfd8MQ2FW4
3qSCxS1SICxEvAJXfaQOr/7jIAbnd8FNkwpDrWFFbc9JTAXTzSnCMEWbZNBh/LB3UTfK9yqqrGgtInmLsd
j8y/DuKEXoVtnMyw6Bpmtm9BfvfiZT27H9cPoIT38m03R+xeGFpxS2jioGetqv0vKx5bvl3DuFQ58pcN1W
w6IW1Gj/H4gNvNqltByHBbfWloX75+IrmWkL4GfPPkTZMKMVTiPKCrc1dSU0wppflcP3YfNITZ9ICKzQS
c5jUvD2wby565mXiVy9+GrBu7D54GnWN8oYSk0GHx+dfhp9fNxD/2nkCgHRQu1AuHS4v3vrgMJav3w
V760mr2FoFSG88jUEEnE0JKC6yoqW1lyfm8PWTmijcR9cDx48f0EMPAQA++ugjcByHK664AgAwZMgQP
P/88zFrIJEaRDuY+GAku9ODETcMgcfl+d1Dgi2Jbo8XRb1zMGVcvj9yXGg9uOX6wX4LmNJxKOBtbquP1G
HGFQWYMOxiGLWM/35Cy2azzQOb0x1iqeCV3acWVWDyWdTMbH10WgY/1DVjckU+WA5+8cvrh8kaZ
2vPIIHj6coJv7FQisgP8kLv2ehQiQ/kP6lkZUsRELZqD5Sh3MtThw4Xo+fxZcQwCC43V5/buu7n/vlf1oiRyw
WDbnARAAB+euDIT21FISG45Bt0qJ3j+yQXLo2hycg80V+z06yBadurSzG0tbTF75NaqZAak8NICza3XitIde
D+yUWJxT+gMImFy44WWg1wDWX9cXkinwc/f4cBuXnBsXf3fNhMvjy1se6YIIOikpWga4uGsWGhtbRP
2hB/bNhdPtXC+uaisCJ27Vyyu8L/XytKpCsZ86rU9eGz+GEyuyIfJqINow0Cn06D+nMOfuO+T8Cbn5+3nf
zkeHi+fjSdwwAejpMeaTTqcPmsDACybOwqb/nMEP792kORZlrNIENSdiorssKgYTBvakllwKawsM+KxRW
w6DQpFfwbzxOr9kJEozw7OxvNzc0AgI8//hg9e/ZEnz59AAD//e9/kZMj7dNHpCfhDqbAiUCPQ7VnsW7L
gYBMFn4FMGgQttg9khM0AFywufwLwaHaRIg7myWPRlcrHksy+Ev733tS5slgLdswqLHA6vFi9s4XF44n
D5LxgNzRuD5N77E80sm4E/bDgRsGpwur7+YhBiNF5yYN7VEvpjIklJTBYTNa436RwwY9RrFV1NhDQ2Of
H6+zV4/f2agOldHMNgYN/chFR9VApMXDC9FLOvGSi5gMbimNdi0gVYI6eMy/crlfzxuVCJOnvOHjJu1cq
KmhL1SrKsZVIVSrbYvdQqJfJ5yPIMRkW9c/3/BnzuYFKVesPZ1KarkiKmYJoMOrwcVAiNJ/i3mPVaVcGYDp
cXTS1OLF+/Cy/cezle2XYgREZ+MrKXYv5tA6OBMcui1Rv34apRfUSVcMDnziLnDrNj/yn/2IRaYMWCG5Wf
d0iaToaRfuaFvpw97wh8rVWuwHG40OKSNVLZnR4Y9caEBv8qjTF1mbk6NhEp4uXl5Vi5ciWOHj2Kf//73
7jllsAAO+//z7+8lc/YOzYsTftJf8GAAZJhaCZUMtZjMmFgbs8dUU15BTANWk7OMXAofHC61Gg4usmQ
BCSyIPFiyeHi+LXV+f9qUFFPG7NLe6hUhNkHtbv9ug12Bg31wYGOD2yuK2SShH2dqRYdbDwCAm/sVKV
CpCbC9IEY2aBjcNKkQQKhMCn8fj7719wUvAMJ+kizLHaNFQ8mi7WjNfCCluMbCgmrWawP8aoWbj+AN

cFmRFRMvvRhPLRwbV8uaGllWUuiDUZuNRG0ecv7fAFTISFdDOisPlc+EZTG3shguD6v4WxiOQ9cci+z3G/Qa/4a6rMgKi14jLiOtwdNyfRhc6EqKrdUP4Zm7xmHt5gOkc0r1kbZ6E+E8J7l5mT99eWz+ZTDoNCHjwGzUyRqpsiyGhGYoUTvG0jkzVyKISBH/1a9+haVLl2LlypUYPXo0s52bBwD43e9+h549e+Kee+6JaSOJ5GNze7F8/U5Ri9ny9TsDjsTULmp7a+rg8Hhh0mldLcVlg7sFWFb4Qi0l/fN8VsHWgWzW+pSrLp2MuG1KMDweFnanBzotg71H6vypC4V+rIJWQ6kJcqHaoed9zHkLBQOotnaUFviO2cGylZ+L1OqlPKDwE2Cz0xNQGjk4SCgtA2Y4DI07mzBh2EX4+XUDoWEY2J0eaLUa7D18JuCtZUVWdM2xYOW9E0QXAOFcYXd6cMc0efepSlnWoh0LC6qvMEjbpktp86HluLay2UHfHcsj8EiUbSnCSZmmllEcD54T/jucHOlKtCclJfi3ZJh1MOp9wYnBv80iY/goLfbZhisr8vGvXScCFHlHMKTwPgum14reBwh8xnKnXkW9fQWHeKuzyaCD2aTDjv2nQuZMQN3zFhsjof2kh1ajwQWbE5cN6RH4/AVyoDT+PV4uYcG/4aYlJOX4bm9Epljn5uZi/fr1la+//vrr6NmzZ9SNIhKL2EQRjM3hCfFFDr5uyTSOxtQAn3KtYcTzXAv9ZdWUyz7f7MKytTv875Pzc5WzGvITpM3N4kyDDQzjm7ifem0PBvbJxbzW9HRSk4iaY/ZEw3ActBpG1mUmlXxRw0HDcRic3yXETUB4AsMXEPFZaBjZZ2fRaWDR+RYKg46J+alRrUU7VhbUDMF9xNxSelozAopQiZHK+a/DyUYSTtYWI5uFPsiHN7iaq5f1zanhWknbi5li/C1ehsGqoDz/Uhl+hNfnTS2B1+srsHV7ZXFIX8rJnl/RIHDpkouHuO2GYvzl799g90GfEWHzVTmaWlyyVmi5zbPSGLHoNMJoZILDw6Kpxam4CVMa/40XnJLTVGpruKRDxp90larV99ixY/j0009x5swZzJ49GydPnkR2djYyMzNj1T4izshNFELUKhB8+XZhiXfHvTLholY5rh/Wbt6v6C8LMFi/9YDsUbDFpFPI56rWarjhH9+gd89OGNA7B/k9O/kDg/60zVd6Xs4BJRutXOnqi6oEq9GEFAUBfAusRgM8/8sJ0GvCz+sdL2LxHGhX8HtEG6yhf7zUqRcKQ45a3w4Jw9Kc5sweK6nNSMgS4cal0FHRY2MaAHMu2EinG4vHE5f8LRZ35qBSMtAbOMciexZFDae3bpYsGP/KtZ84qeYdc1A/Py6QbA53MjOMKA+yGc7GCn5UWrnomkl8AJY/bb0RkUMufGfyOBfSksYOyJ6KizLYtmyZdi4cSM4jgPDMlJmmmuwvVq1NbW4q9//Su6d+8e67YSMUZpouCtBoB6BUKqfDtnTToNX4L0mVDesge8fL+sjaPTL7o1p23sH3B38mnHVNrNbS7vdj1zWnRan4AJH3MhaSahSudfVHlsDk9smXrXR7ITCijJfBPIVrSirYd4VrDYp3FQdHSGIZCoraeQFmRFRmGwFoHcgWgpJTCVMpoEU+UZMTmZvHK1gPizzCK7xWzxMptPEsLrChqzeBSVuQrJ6/IOP/Y6pZriSiAW6mdLpbDmnfFDVFKm1k+GB9oU4jNei0sCTS4pFPgn1Qnop5avXo1tm3bhsceewwTJkzAmDFjAABLLy7FggUL8Nxxz+H3v/99TBtKxB6lieJ8sxMZrUqMmoWbYxjZ8u1VlcU48v25gLRpcvA7alU7b51Gsn233zAELMviihGXqFrw2utOPxUt9dGiWG3O7kGmPrWeVao8h2jaEc4YibULixqlaDgnD2qCmoM3KPz71RaA4klld55YoyQjZxptESmhkczPcuX/KklaGpxYtzQnuLxlyyLBTeW4MUwN61K7XRG4dohJ0cLppVgVQIMLu31IDUZRSIb9y4EYsXL8b06dPh9bYFLwwcOBCLFy/GihUrYtZAlnzUWlyUJooWuxsZeqP/b6WFW8k/fO6UYmgYYN2WA7IVxHhcraW71e68lQKFOBNUKRteaefapb6aMkwK5Qfn8f2WcXKmpkqzyHsdqgdL/FwYVFrEQ3H4i8XPLdicUXIc+bfX9+K3ic30r5INws631608/IYC10ThUi59/melQuLTvwdkc7PcutXlwx5+ddFsGlVaqfDKV/aXcrgo0aOERHrb6+nrMkgolWqvr4eAwcOFL3WrVs3NDU1RdUolnL4nflBEw3+ACIOQLccS5vvXStKE4WYkiO3cCsp9vbWDBRqotdLC6zYd7QenYdeFLZ1S22gkBS0008fLEadrAxZjDogRgGyHcWaqUbxUztG4hHQpdYiGq7Fn587sjubkJOtgcbGFhkhFDsg45ChsNETzrF8XwQHd/JxLA6P158FiifdZE5N6lrA9xuC8/wLabG7YckKVEKFcvn4HZeh+kh9iIKvND+r2XhKyX+4m1ajQXpuKiuyKhsRJNZntWMqErV9VDndS3ciUsR79+6Njz76CJdddInltc8//xy9e/eOumFE+HACJvXNAJHSYtop0wiPU/7oX4gaS4Xa6HX+SLiodw56d80Me+cdjSWOdvrpg6b12HjVO6HV5hbcWAJNjTwVAhOTARqFT+1YyQebi7hWETjfflQzqY9uKJpcBzN5cMuDvh8usmc2tS1fFaUu5/9UPK7gqvmqlHwYzE/x2rjwzEM1m3ej8qKtSXwnbfoa0EGiAig0+quU6myuleOhORlv7zn/8cy5Ytg9vtxuWXXw6GYVBbW4tdu3bhlVdewQMPPBDrdhIq4HfKMycVqgogkl1Mp5cgy2JAYxiKuKpFSYBc9Do/uTIAvrVGmlez847WEte202fhcHI8+WSDThSI1EDHcVg0oxQ2pwc2uwcWsw4Woy5mSjjQMvJ1hav4qbGGxcPNK5VOrMLZtAdXNBVSfaQOa7fsV53fPBVITsk18dbJg/x+2B6OQ1HvXMmTLKNgrZBT8DUaYMXicQC4qC2xsds48AH/1UfrRbN4uVpPPyIx+LRn18mOSRpbMaMGWhoaMCLL76lv/3tb+A4DkuWLIFer8fcuXPx05/+NNbtJFTA75TDCSCSWkz1GvkKkWIwgGz5dj7SW0300v83X4bdFuZxWyysBgZHIdukRe8e2WhsbIHhk/gc4IQ6NCyLTL2mLTAzxvnaU80KFQ8iUfzkrGec40s/90hVORggxFc4UqU51U6s1B7PB1c0DSbc/OapJnOkWYkur68wFMdBz4hXxS0rtKJqSjG8LAdO5zN8KMklJvtKMNrNVyw3PnxFSNXeGD6gK8yt7IOLbyyFw8PiQotLIWtHKm1EidgQ8dZp3rx5uPnmm/Hl1/i/PnzyM7ORmIpKtp37hzD5hHhwO+Ehbm6xQiewMVS1Wk0OlywudDk8KqqlHjsmz55bD44AF1zLLAILMISynpwCeHgv8NddMhqQATDajSwOT1osbuRadbDHlBvVcPIUyWVP7Ej/qGFVjxz1zj8UNeCDLMOXXMsYCLcMKWab6qa4/ngiqZihJPfPNVktqk9JqMONg8HhgFMogbdOptQMbSnnv4Ily3HYd7Qe9/5he4Crid2Zma1JLOU/nGenZYCLu2a1GXsUZDjVNqJE9EQ1kjMzMzFu3LhYtYWIEn6nrJQ3OXiSkPKLmzGxEMvX7wywYln5ygUf6QX7pS9sLQ4kp6yb9Br8UNeCu/9nmGgZ9nAXHblaEEI8DBNS+If3I9epklOOIE+xUvykjvi/OlyHtZsPBORSjiboM

B19UzPC6ON0kzmlfOyfVJ9ETW2jv2z93MpiDOufp5hPe94NQ2TvG6sNSSw3PvF+dqm2ESWiQ7VktZW4
EQyjl2BYRh88MEHETeKCA9hIHfV5GJcsDIVFyCQ84tj2bYAG/41MV85NUd6Zr1WVllfML0UWz4+FrOJi6
wGBI9c9c1V7+zDohmlAZZxqawJ7V2eYqU8KPK82LIUzXoMFrkss7Elr95qsqcmnzsVGGlqHeO/9I7vPIF2z
xeLiEbEqVnYzKoz8CUIGeXjhtRQhzVivJlKSNVK+JE4hCzZpcP7oY7byzBSyomAbWLJo+Yr5yalz0AspOtw+
WJ+cRFVgMCkK++WX2kDjanB5mtp0hKWRPaszzFSnlQmg+ErnOpGHQYDUryE24fp5vM8e1tcXlxsq5F9
HSTX1fe+uCw/3fJYXO4E7IhkdtIXD8mHy9v2Y+5lcWqT3DS7dkRyUO1lv7kk0/Gsx1EBEhZs3d97SvNvmB
6qb+YjcWkg0WvBQfA5mH9r4WzaPIE+8qFm7ZQjBa7B2a9FoumlcAWw4mLrAaE2uqbarMmxFKeUq1Y
SyyUB6X5INh1LIY+vsnuS7XyE2I+83Saw+rO2fHkq7slr/PrCv/75bCYdAlTarUchwXTS/Fjgw3NNnflRsLIYc
M6wZF6dkJZzTDrobO5Yvo7iPQiYucqp9OJmpoauFwucK3CxbIs7HY79uzZg3vvvTdmjSTEkbnm7/r6NGZf
MzBgEvACIQvFY/NDc8ELEfM3D544w01bKEaLw403PqjBndNK0m7RIRJPOEqX2uqbiU4XF4/S73Y3ixa7G
yajDiYwES3w0Sp+Sr7CwYVcYuhJmwqFb8KRn3RUrtVid3slq2by8OuKy8Ois14nu34ADGweFma9NmZ9Jj
d/OFwePPzSZ6Kfi8U8ICurEX8rk5ENAPu2rULd911F86fPy96PSMjgxTxBBBOlLeUtWbf0XrZyoTbi6aYTx
7DcbhjmnhRITskOhaK3ae9+owSsSVcpUtt9c1EpouLdbEWqYInN00qRNfOJiT8UONrzBPLHx8U6XwTbql
G4wXNocHh2obMbTQiq9ENib8fM9XT/72h/P4xXWDAXwt6hJy7x8Ds6hEu7FSmj/i+RxTRVaJ1Clirfy555
5DTk4Ofvnb32Lr1q3QaDSYNm0atm/fjr/97W94+eWXY91OQoRworylrDV8dUuNB0H+d4VWzLjClzXF/5
qETx7HMFj/xZcNlhbwwfqtBzCvshgAcOvkYpwZYwPDtOUULuqdg7A4tzeFUSK2RLKQqa2+mch0cbGyvv
NW8NONLZhckY+CXjn+XN38b60Y2hNI/fOiXuDDOYUIdiUwm/SoqW0IKXMeCx/fvCl8k27pBuOfxaTD1
u3HcN/s4WCAkM1hZUU+/rnjREAA53Vj+mJMSU9UTS6GzeGGy8Ni39H6AHmJhbKqNH8smlaC7AwDII
WVB6xjvwz30TzHVJFvtStb3aujEJFE1dTU4LHHHSNPfvITXLhwAW+88QbGjx+P8ePHw+1248UXX8TatWt
j3VYiHDLK4vBV7d84s4xmHPNIJxptEGv0+DI9+dw4Hg97ps9HC43i57WDGQYxAchX0Vs1zenQ66ZDFq4
OGDNpiALRGtO4U/3nQyYbPm2dgTLERE+kS5kaqpvJjJdXCysbmrKfvOBcXE9Tlfp21zWPw8rFlfEfffPFut
0uqUbjBdmvRYD++biqdf2YOrl/fHTq4rAsYDBoIXXy6HZ5kLfizoFzPsOlxc367GynsnwGLS4b4VH4p+d7TK
qtz8cfDbBt9aFZRKUtimBvbNjeo5poqsqiEV3L06ChEp4izLolu3bgCA3r1748iRI/5rV111Fe6///7Ytl6QRa
w4jsmgxdwpxSjqnYuzF5z+BU9uF+9weXHughNbth8PqGwp5KmFY/2ZJYKRm1wqx/ULUclBn5WEzyksV
MKBjmM5IsInmoVMWH2TyxjYBYHMiU5RGK31VK7sNxCYdtTIZIPiOD0eftEcw8BkTA1LdLqIG4wXwn742
/s1+Nv7NVhWVY77V30i+RneZ1xpfPPvkZIJJQtuJGsVP6bmTiIGaZQnS8rjXh+QTCFZFmhyoUksEc1QvXr1
Qk1NDYYPH46+ffvCbrfj+PHjyM/Ph8fjQUtLS6zbSQThZRis23IA/S7pjNnXDMTsawbB7fagU5YJazbtw8q3
q/3vLSuy4s7ppYo+2mLpCnn4CURsossW4vRAAnFHhBPj9iRLEdE+MTi+D8VUHsa9VqUD+6G3j06YUDv
nIBj8NpT5xXHqDhpRw16Tbs8TuefY0GvHNm6CcJgv3grD5SyzkdwP2RnGFQF8KqRU6n3qLHgCj9rMmh
ROa6ff/x162KRXatum6l+daEUSqcmh2obQtFuJFigu3XMPwLxcNeJqCcnT56MFstWYMOGDcjNzUVxcTF
++9vf4v/9v/+HVatWoX///IE1ipCHa1XCrxzVB18fb8CS57djyfMf4YuaOrwosYtdt2U/7phW0rowtcH77P1r
5wnMnFSIzlkmpDBnBJZVIWPmpEKYDL6Jw6LXwsswWLlxHxau+BD3rfwEC1d8iJWb9kGv8ykVom1V+C3
C9IgdzXJEha+/klmhJkOPkqWHYxi/5TYv0wCLThMxeWQ4DIWVxaipbcRTr+3B8ZO+wPeiXjmYfc0gxc+rT
TtaWmBFQ5NDVeaiSO+lxooZa4TPcev2Y6isyEdpQejcxgf78XOVNwG1MBIhP+mAsB8MDHCnzPqzdfsx//
iNZlyrGddA2/xhMmixdNZw1NQ2Yvn6XXjy1d04fdYm+3tsDrf/XjYPI/pmF2we1v/davtErB/4StbrthyQbX
+iSMUxnwpl6UDRzisRmUnmzp2LxsZGVFdXY9asWXj00Udx22234c4770RmZiZefPHfQBPfYGN3e9G7Zy
ds/fh4gBVlZvq86+vTmHPtQMy7YQhO1rcEWOBeeGsvFs0sw9aPjwd8vrTAimVVo9C1swkcQIMfAr6J4sV
N+3Dn9FK4PGzlkWzXHlvsb+lpzcATd4xBlkUPc5DPLKEEE+3xf6pYevgA58H5ubj9hmK8vOVASLVZOuYm
lzd/qwpOSYwbDyP0xPvSiZ8jnycS+W4fv5g8e5dLPhs/6mYB/sRkcNbyW1uFmcabWAAf47ugX1zA8ZvuG
NcKA/Blm6DXgM3y8HAtM0f1UfrQ9ZPsVS9QiwmXUz8pkNPTfQw6DVY/MyHIW6aQHIs0Kk45pNNPN1
1lupNjUYT4Afeq1cvrFy5EgaDAfn5+cjMzlyoMelGsiKKbQ6PqNLtcrMBk5Dbwyln2wSdlkH9OQc8XsCo1+
D9nSdQfaTe/76Rg7pjwz8PipYA12jgnzTEFBiTQYuCS3Jgd3rw058U4dbrB4NhGDAMB5POZ7mQO5L8pP
qk/3dQIAGRDMcwaHJ4cerbszAZDDQNdBrGMytLEazzZcv26jXwKBhVLkxzStYKty5wOHx4spRfXC+2Ylvv
m1AZUU+rh7VjYBlg9jkt8HYGSPuHvkZeCOaSXlZjTA43TDE4UirjYIMZHzYfBzdLi8AfPhA3NGiBolknms3i
EyUDAMXCwHp9sLh9MLi1kHDcNAP2Xg9nCwOVywmHTo3S0LTrcHmWY9xg3tGdIXGgBVk4vRMkntGG
ewrKocHi+Hi6wZshtbLcdhQO/cABcQAP6UilluTiaDDqveqY6JliaMI9DpNDjT5BRVwnniGcQpJpcUeBxKPI
04YSni+/btw+rVq3H11VfjhhtuAABs2LABTz/9NFwuF4xGlxYtWoSqqqqIGpNOJDqiWDhYTEYdGpqcle/hj
9vELNuVFfm4f+XHGNg3F3dMK0HDeQf+9n+H8dYHh7Gsqliw03yvQJmBiCozU/YltF2pzCpPfiHailxbv6fbi

96/uDswvrOI742HpiWQu4DgG/9xxAr+4fhDWbj4QklaRz9IgnNyF9+HHHssi4LPC++p0DLIsBjQ65SuLKqF
0CuH0esFag7WbYz8fSimv4VbvFJKMzBQdIQMFyzA4c86BNz84HCKTM68oxG/W7QxJXWnObH1Ogj4Iq
+ANw8DFAeu3+jKdzJxUiPc+/TZE5mQ5eW3g3EyF8Kl9AFew54qiIKRYdi5MFwqqvF0wrocDjIOKZ8Ub10z1
06BBmz56Nzp07Y9q0aQCA/fv34/HHH0e/fv1w99134/jx43juuefQu3dvTJo0KalGpQPXPKIQW3g4AKsE9
5s5qRAI/fNCPuthOWwLOm4DQjMpvLhpH8aU9PS/LlbGXohUGeLKcf1CjveAtn5YML0UGpYNOYozGXX4
pDo0bSH/2Y4cCEL4UMoKMra0p1+ewxI3kVh65CyZkc4FLMeh70Wd8PKWA7LjIZ/cg+8jdMeYcUUBDDp
NXK2sYkGIROmO6zbvR++enVDTGuwdTh8olaeQKQe9NYa8zpPoY3UxGeFPEk832uP+7BIBxzD46mg9Pv
7qpKgcAMBj88egqcWpeOKjdjx5GQbVQfeUc88Uri1iMiAcU1WVg+FwCsY7gNMNSj7k6hSx4PkkQ6tBp0
xjwi3Qcn29qjWnOgUetxFPdx3Vn1yzZg0GDBiAP//5zzCbzQCAV199FQCwYsUKDBgwAABQX1+P1157rV
0r4vE6opBaeGZMLMTBEw3+17ZuP4ZRxd1DjtE0DESP1YDATap7a+oweWxgVgU5zEYdTAYdHpt/GZptbv
/xudKk92ODDd1yzNBxYMBRXH2zS/JzQGrUiWSg5qsIF06mfyvqR134fqYK1kyI50LHE5x97Lg38hP7mL3
4d0x3vrgsC//sk4T1+Ni4RjmGAYrW4/prxrdR5XyEw5qCq/IPcd1Ww8Ef6X/eqKP1YOfndJJYjpayO1uL3Kz
TZLrD7/mLf+/K+DEp8XIDahPoXY88flxuSI/4J6qjEqZBsmNnMPlxZHvGnHViEva0vVyHGweFkrheNfkbFo
0swwLppVgVQlt0Ep9beM3LTFOOZquxNNdR7Uivnv3bjzwwAN+JRwAPvnkE1xyySV+JRwAxo4di3fffTeix
qQL8TiikFt4WDYwL7DD5cXydTvxSNUovPuhDhMu7YUunUxwONVlUgj+t5xvXGmBFUa9NsQ3rrTAiqEF4
pHtPM02Nzb+50iI1YMCQQgl1GYFC6MmnGnNsWckjl474YhEc0FXoaBy8MqKg0c4J/cI7oPB/z3x6alfO
mVEC7iapWfSL8/GKGSIPUc51YWiwaPJ+NYPfjZKZ0kprJr3gWbC00OL2wOd0B/2xweRTngrwtPfE7WteD
9XSdUI5dvtknAiW4A49sEjuoTcF1NwCUQuCE/+G2DP16KA9BNJMGAzeFR9CFXUsTk5pMX3tqLxTeWjtQ
CnU7FhVKBeNYJUK3xnDt3Dt27d/f/fezYMTQ2NoZYvs1mM1wuV8QNSgfioUiGkxcYAM41u/DUA7uxfN5
lWN1auntZVbnsPYSTIPdUr5xpQVWzLl2INZvPSDqIjDjigLF+4IzXcGqHFAiEh/gcMadmulysrgyfoWGBTS
Aga3iV+MC3rliLqXCemaY/FP7uHOOV6Gweq3QzfPN00qRNfOJmiiHF/CRVyt8hPp90tdt2QaJ9jKuXzDv7
9at0nUg2nl8NzG/aIKiEWkw7NdvIBKGcBJ/Q8hsQJVmxOd14YPUneKR1rQuWvXCUS3HYdG0En/lZ7n
TCYtJJ7tOzp8afcamFqcXFh2TMA50GcTCJ17ziurR3rlzZ5w9e9b/986dO8EwDEaPHh3wvmPHjiE3NzeqRq
U64eY5VZN3NBIL4G03IPiVcABgOV/peDGERRPKiny5hXl437ii3jl4bP5lWH77aCyrKkdR7xw4XR7R0vUAs
O9ovWQ/CO9nc3gCfj8D8ZyyHTkQhAhEboyVFlhx9rWjwA9YTQ5xIUpjkmMYtNiVx+S+o/Uh+avl2sQvxlu
3H4PFpJP9rEUfunlVcx85//o3PziMr47Wq85LLNVPwkWaV37Ute0tsVASUiWfd/CzU3OckGr4ZarGFyg8c
1IhllWV46ryPjhzzg6TQYeGJoekHAwtDPXb5zj4X+M3lErjnn8/L73BsieVU15qbWEZRrzs0j+8YF9c/3r5LK
qcn+9jYqhPaFXMZyUN5fRBVWHS7Q1GToq8ZhXVG95Ro4cibfeegtXXnklvF4vNm7cCKPRilqKCv97XC4X/
vrXv2LYsGFRNyyVceelltgnTFiC3i443pOrTgmIW53yOgX65Bm0Gsy6ZiDAIKBdwgwl/jYiMK2gw+VFTW0ji
nrl+IMoy4qsuHRAV8k2bd1+DCvuGof1Ww6EWN6EGVfCfHh3rfgw0J8WUCAIIPUGBNmTVnf6gcc7gZ
Oye/bK/A/lcOg1/itZBoNVB1X8oux0L1sw/9CtC3Bn711cjHOjG3Lv7x1+7GQ/MuAutM1NVZxtcGSStkml
hnTyTw183LA92cu4EKLKybzUrAsx+MEId7wMiXl314+uBvmVhajZ54vdXGAHBRaMbkiH0+91pYhy2TQo
mdeBrly9BhaYIXZqINWqwEDiPpKB68pvAleLHu8UWnULGUUVQ7G2fN2WDtbYNaHkKxehsHpBpsqn3Th
MxSznKuRRTXl7RNJPf0tiPBgOE5dbx85cgQ33XQTcnJyWHEcTp48iQULFmDRokUAgi0bN+Kvf/0rDh8+jLf
ffhsDBw6Ma8Ojwetl0dDQInldp9MgJycDjY0t8HikrRdKeWG51ipM/EDvnGnAl1Wj8Ob/1aBPz7bS1lkZe
nTNseAv732NT6pPhdynrMiKMSU9Q0rfzryiEA+u/hSAb2J7evE4vPreN+h7Udt3Z1p8313faEOGRY9Moy
4g44Ow/SaDDk63BzaHB1kWI7wsC4+XxV3PfiTZB7+eOwoeloPJoA0I5Ny6/RgcLi9KC6woEjmKLSuyprQv
JI9aWWjPqOkDqzUrou9WGos+GWXR4nDDZNDCqNdCr9XA4fagxR7+Bi54TAopK7JiWfRSfzEzEmFotIA
AATltcmgxYrF4wBwiptKm4fFQsGmNLj4SE9rRkDwGiCtEM+bWgIDgxAlol7ZhftWfiLZBw/MGYHcbCPyZ
Pw/lfp0bQSeAH/Is7/jpL+eTHLAuJlGEklldqARqm5OzhFJP+b9DoNMqL8Tcl8Ou3HZDcZEQ7L8ZjLPIyJT
cmxpb2wC+uGwyPI4XD7YXT6YXRqMUXB0/j7X8f8WfIMhm0eHTuKF/GlynXKQA2txfNNG9sTnfAmsJ/x9
JZw/H3T48H+nhzQG62CZ8f/BFH/3sOt08dAq1IkThevq8a1QdPvrpbSk+eWjg2YJxEkwueYxisDJJnnrliKxb
fWArOG581RinzU3szikXKuq12LKreehcUFOctt97CK6+8grNnz+K2227DT3/6U//1559/HjqdDqtWrUppJT
yWKPMZBlf7WjZ3FP72fg2uHt1HNNf3ghtL4Paw2PV1myulMH/qynsnBAyWfKHqV8px/bB+6wF8dbgOu
w8GupLwSsO4oT3BBBXeMBt1sJ0YBhfZhOzVgNDptG/GM2cVCgbyPnNiQa/VeJ/d5wlsYhdPyYwVzHPKv
tCEqkDw3HINmnRu0d226TKsjBrNTBH4EepGATo9Pivy/mECq1zDpcXHIAMwVzAwad0By9uwZZeYSEaM
SVMLsBrzbutgX1Bv0ONf73Se6INlvQ1PrrFPF7+mJKW/umlWN26CYtHZhN+vQDCrxyZbHh5kfJvNxm0u
PzSXlj5TnVATQo+6xdwxP9aVWVxiBI0ti2xiqE9UdY/z9dXFh0eWB26qeQt38//cry/UjQA1PzXp7ADvjXR7

vQEpiEMys6idOplMupQ3xx4MhKpD7ecBXrxzDJoORbxcEpSogGM5jcRsSGsM7D+/fvjiSeeEL32zjvvwGq
1QqMhxYpH6BPG5wTue1FoaXrANwm9uGkf7phWgtnXDAqJSgcQMlgsRp1fSVZKhTbjigJY9FqfFUukSEpl
RT7+tesE5k4ZErAYabUMfnHdIDQ0OcAwgUfivJltVmK6R54FWo0G9/5xu2TFMlrKJhKNzeERLYHNY3WLI
OBMTK675lqw80Bg6fTSAisOnWjA0ElrtCyruPCpUcl4zbKX5cJOjyjn1lFa4IsP6d01U3bBjTZYMIbE+vvINjZ
CN4V4ZzZjPwBSNfAyJeXfltdfAPD8L8ejqcUFs0kPI9uLve9Ui31NiOuUnCwP7JuLphYXlq/ffFc6mk0UL9/
BwZ3CuYHjfHPAnkNnAtzAtEEb5XAszWLPPcOoQ15nMxobpU8GlyWeNU+I2BEzZ7Ru3brF6qvaDUKr04
DeOWi2uRUj5r8/04xtnnxxvG/Ayg0TDslhwYwle3LRPMQDIoNOAQ6gSDrRZlop65/gXI+Fk9rf3a/zvLSuy4v
klE8CAw13PfuRXRoJLTK+8dwlATIIJNxm06JRpgM3DocUe+/RqRAcgqJx2hlkv6gsqJMOsk6w+u3TWcGRa
Av00g+X6sfmXiVatfXrDHjx8azm651r8G1khwoVPSQkTKvIPzBkh2wVim1kl//qunU2Ki297zaggZ+lvtrVtw
hKR2SSdLJG8TJ1utlteV+ovj9dXDdXmcCv+TJebDdjoyVZ1dYeuL/ymoKa2ATMnFQZsuKuP1mNY/zy//ApP
vWpqG2Tnhqc37AlQXuU23AwCi/AJr2mDnrtWXdx0RMSzLDSRO1JqNI2zZg0++eQTvPbaa/7XDh48iMcff
xwHDhxAbm4ufvGLX2DOnDIJbKV6hLt5fiJQUpgtjOG9MnFuq0HcHtlseKCqQMwpqQnunUjzX0a+L06V
UFc/GlkZ+FY866vaubAvrnywVSAqDWD9xF8adN+UR/Bbp19hVrSxVpEJBaOYWD3sAA4rNtylOQoXM51
wKjXSZ5IAcCiGaWyQYIOlxfLqsoDLOm8dbzZ5oYtw6Nq4ZNSwoltWJEG9mk5DotvLIWttV0mo8+/Xu1GV
8wSKfSZtjk8gCCuJBJ//WQgZ+kX9nU8cqOnO0Ytg4u7ZYqOD6X+Ot1ow29bLddq0uwK5Tp445ph1sGo1
8Hh8sUzPX7HZag+Uo9/7TyBK0f1weghPdD/4s64/YZivLzLIhSXdwvDxaBfPOnXj+/biBe/cdBxcrUFHYXO
UvzmJKeKWGFplzh6UHKbIX++te/4vnennw94rbGxEbfcgt69eqFjRs3YsGCBVixYgU2btyYnEaGcb+bLyuy+
hftYItbMDaHG4e+bcBVo/rA4RG3Jge83+3FyrersWP/KcUUymPSJKL0YDeObJV0hwuj2IKQuHvFzJ3irSP
4JsfHEaLy4uVG/dh4YoPcd/KT7BwxYdYuWkfvCpTrhHtF29rkNX2vT/g5c2BSjgQmnYsGfLI1t9V6k6u508tw
YoNe7B8/S48+epuLF+/C299cNh/6mPQawJcW8RQGoPBm+VoUgNqGaBX92z0yDEhy6AVDeyUInjs8idk
NbWNePilz/zj8oW3q/HjWTuWrd2RFuNUzpj/qLbRn/41HTObJlIu2WbR8aG0rgklQk6medepYLkWpowz
6HwF5vj14VcvfoZvfiPx+4Yg5raRvzyuY9w9PtzWCsyP1Qf8RmSOLSI0OVPvc5dcla8X/i5Ab1zAPjGsJKIOT
fbJHnNLmLfjxft9WSrvZH0p3D69Gk8+uij2LVRf/r06RNw7a233oJer8fy5cuh0+nQr18/1NbWYu3atZg+fX
pyGhwm/G7ezXJ4f+cJ0dL0PHye1L2H68ABmFtZrPj9/MKJoWYmiCuQ7WNsr6AwvsqBmtB3BcSYAlyw
AipPIKHphZXSlgTiNTCy7W5V6k2uyl/IdUCVhUhKrgHJUyB+7l4t7Sn7/YoFS4LaF4/UgGoRjI2AwfqtBxSthak
+TuV8jr/94TxmXTMLBdeYZiOhlHltMoFi9ONvnSafIYsUXWNRy4IWsl1Ssrnue9FnfDy5jb5V0taJBznalx
mALS62IRf94MnkVZoKp6XHiRdEf/666+h1+uxdetWrFq1Cj/88IP/2p49ezBy5EjodG3NHDVqFNasWYP6+
nrk5clXpksVGi6DgfEp1n/5xeYc+3AkNzBwZkYvjpB5bjlQLBgc70TAMOmUa/EflWg2DyRX5/sAyg16Dn
nkZ/mN6pSCuQ7WNqD11HndMK8EZCV9AHmGpYCU/x+D31DfLV14V+moKIZ+2jk2LM/qy6motRFJyfce
0EqwSFNECAoOdrxrZC2VF1oCUavxYbGhyQK/TgGMYSUJUuH3BAaMZJj0yZllzAeH7weZhVvf+TeVxKuc/
f/XoPvjtp24clQfDOqTi8uHXyY1W/anTWaTROKTCwa9umb6y8RLbRiDM2cJzfrWyYPgcHoVXaeUgpeD
FW+184NwnNsU0tx1zbXg8Tsug8mgg9ihjzDQ02TQYVlVeUjaRSCxVmjkFZ4eJF0RnzhxliZOnCh67ccff0R
hYWHAAa127+grMnDp1KipFXCezSGi1moD/h4uX8ykNNocbGWY9LAYttlyvs6uuHwyby4uqymJ4WRan6
m0hvyqY8DqcHnc2+ly6nlwsNDCm0YsYVhXjqtcAMDpUV+Xj+JS8xsG8uFt9YGHAMlRuitWVNKYZRw6BnX
obsTjrDqls4yESplHcsbDN4UF2Z/Fjv3gQrSy0B+LdB3JjUXhfuzOcsup60e/N0GqikmsdglUzSnG6wRaQN
/9fu07gtinF4DgON11RCJYD3vzgcGDWhklrcrNNeH/nCcytLIZR5EZi7eOPzvlcw20fkx+AsXxuNoXNs8mgg
8mg9c9DiR6n4aAD/P7zTrcXDMOgqcUFluVw5ag+2Lr9GI5814i7Zg7F4htL/XO5xaRHhHb2v+p634TDeG
ui3xftji9sDvduGNaCTxe1t9fOq0Gdz/3YUjQPi/T44ZehB45wetBYN/ya9/BEw1YVjVKtG3Binck84Pc3FBaY
MXOA6f84/DOaSUoH9zNn2pYKIOLMNCTL5IXPMfEfX4FOpwc9u6nXRFXA6HwwGDldCqZTQaAQBOpZ
Pi79VoGOTkZCi+LzvbHPZ3152z44W394bsPhfNLI01c9v3napvxplGp2wxgawMA3JyMnDB5sJzG/aEums
crgPLtR0LAz5rhEGnwaNzy5FIMeLsBScyzHp0yjQiy+Lry6WzhuN8s9MfxKVhGGi1DO76n2H+9wDAoplle
OGt0N+yeGYZ8jqH3zc8OptLWhkSKYUs1ieJHjZaG/Eow/UjkVAvKy6lOtAbidTgCwLiYVcZ5j1ON/sRIvdjcs
vvRidMvsBAJ7esAcD+uTi4LcNoYHOreO1qHcOVm/ah6Wzhou2MdbjLhbPrUXBwshyXMA8IKxxGg515+
xYJ1IveFnVKPTlyOCX1r5Oj3PX6IlmXZTqows2l2xQf/A4vWBz+cdVhIkPs0mHde+2FdhiiSY4wYp3pPPD/K
klWL1R/MSlt+r73a9mDIXL8xX21tRJjcQum4d+a5RdgzHe43pKHIsJF3W7ZRwXEOmE1yuQEsMr4BbLPJ
ZQuRgWQ5NTTbJ61qtBtnZZjQ12eEno9KVlwNeeFs8ddkLb+0NsGa53Cz2Ha2XnSxMOg0aG1vQ5PCKT
mRA6LGwyaDF1aP74K0PjoimTuKtcBl6DTI6GQO+y+N0o9Hp9veBtbMZd80cima7J3AnzbFR5zyVssz/4vr
BeP39g6KfEfZJoohUfToTavogUqVLaSzy93eywMETDf7xlus7Pb0kQJaDkbQQhSnXGXoNMmVs+MeRxuv3j

dPLY/ICUn0L48frWB4fRcN4Bj0gbY9W+WMquSSdvLdx3tN4fzJbocSp1Aqn0GbG5uvplHTQan7EiXcd8v
MZiJPLk5YAZEwwBsQH+4DMMfSLpcPvHgOipb6trS/URn3xJrZnBinek84NBy6BiaE9MGZcPk8GXmUXstH
pvTR3sDo9/nHpZVraOR1XIYFxt3kt0DCdqjYlknKQRqbJuqx2LKa2Id+/eHWfOnAl4jf872rzlasqeer1sWOV
RWzzyxTdanB6/36TN4ZYNWrn9hiHgvL5KWzaHfCYG4bFcrAtRaFp9Af0VA72xqf6lBfwBP7484m0+gnMri
+HysKI+bbG6f7iEKwvtKxj1gdJ3ejnghXeqQ/xQeT/TGvCtUjYgb80jznLwsMoyHmu55sepkn8qf93mcMOi
k14JY9W+WD2326cMwUvv7pe0Fub/z7CEj1OI4kISyPm8762pw/lmJzL0mg435mO9Lto8LJav3xlQFlt35
1q+fidWLK6ApTVuQiodIMv61jWXm5VcM7/94TzunF6CI97d15rVy+eHPndKMeZOKYZdWCBPYX4o7Z+H
1Zv24aryPrIn1vz4tegY1DfLZ0JxOD3I1GtKx0Q815hIx0m6ky7rdkor4iNGjMAbb7wBr9cLrdaXzmjnzp3o2
7cvunTpkuTWBclxDM4oWICEAWQWk060ch8/SbEsC7T6N6nJdsKTIeIUsYIP+LFkCY4IOU6gpFMecal1SL
N1UyY2Xvl6mXyp+YCKzGdgx6mSfyp/Pd1Sh7Eci6LeOSFzFW8t7GnNSGi2lGiqBiplvWixu/2nHUTk2Byek
KJYwdctmQZVNS4A8Wq3vBx6Wa/kupERRTEkPltQi0QxOh7h+E3INIFUXTP1SemVYPr06Vi3bh1+9atfYe7
cudi3bx/+Oc/4ze/+U2ymwYgNItJllk+CFE4GIUZTIInqbliK64acYl/OjAZdHhs/mUBwWF8JHZwaqj2Uogin
arOEfFeClktqg/tXAs8sKUabnS1JHCj2k5/1R+vKZj6jCTTosj3zWKKIVRVZkGOKzWZZ6VtFUDVRSjDIU5nK
1bezoqFVQITZGbg8LrVaDsklr9h6WXjPvRbtqnhXDccgwqE/9l8ppAtOlumZHHkMprYh36dIF69atw+OPP
46pU6fCarXivvvuw9SpU5PdNNGjngU3SIfKy2wwwjQAaxPUVabVsJLMCEls/II7H/tPIEp4/tj+fqd/mtKhR
XSzQpHEEPZdsKV6Xgd0/Jjet3WA6is8FnwpNlcpmPqMlBjcMe0EryYwFRocs9KmEVHDDmjg5Li1CnTKOq
/H24b2/OxvvrUKqhKY7hbFwv++r+HcP3YfLbc5Dn1w3lW4aT+S+U0gelQXbOjyyGG4zrArwzC62XR0CDtR
qLTaZCTk4HGxhZR/yKutbpf8C7TZNBiWdUovP3vwyGKM78AB5etD94FWvRacEBAEQ2x3WxZkRXzbygB
GA5uD9ca1OUrOb1qY7XkXf2GEqDzoK1A/q+sBqzYrou5XGlgAwWg3++E70Mg1lj91lvksKVqOB3enxj
2mGYQD4aglwDAeTLjGWNljLrpdhsG7LafTu2cmfHz3Toke3XAU0bOzHhtKzmnfDEMz//f+T/PzKeyfIWvq
8DCOuOE0vQfcumar6LRHyFC7xGouRypNkPwuULI5hsDLoPTzlg7vhhvH9YHd64fawyMk2QadIUH/OAYt
Jh+65FmhUyF+kz0qtpZZIGHx1tB652aaA2gFD++dBlyMD8V5jbB4WC1d8KHldaZzEm3iMoVRZt9WORTK
PRoDUUY/D5cXy9TvxX1jMLIC3I9y9jUDA4Q++CjNi7bqgcuqymWPINxe35GSXhDUBZZN2Z05QUSClpFO
6ReuTMf7mFbsBCtQ6RAvWJLqCP1Md31zOuBavBROpWfl8XJRuQOIVf0167XQa9SnkkiXY/9kltXPaizK5Y
O7oaqyWLKl1mOv7PIHfCoR6bNS6+6yKsU2ZDyp7DYD0BgCSBGpCLmjHofLizMNdsloa7ljoOCgikj9vdV
MfASRTlg7m1tThxKCZRo+i49aOY/nMW17DopKxmKp/KzcURsdXJUs9Yp4Ohz7pwJqfFmxdtct0GHVO9
Wy+bmbbR7Aktyn8rKZCq7zQA0hgBSxCOC92cTlrQVWr9NBq3iZ8UIHszK1cGkv4uCHYn2hpaB5OkRj5J
fYTyZG6TyYhwtyVgs1TyrclwO8QgGS+VsGell8Lplc3lks6n84vpBsDs8ONNoV3QDieezSnVlMpWNczSGSB
GPCLNei/LB3XBleR/RkrZjSnoGIHvmUToGCh7MstXBkn2kRBDJllrczyPaVN9MY6GZCYwap+VGqNDvILB
Uv3YP91RGIOnz9r8p8+IBVb0zMtE984m0T6P57NKB2UyVY1zNlaA9DTPJBmG4zB3yhBs/fg4amobMHN
SIZZVleOBOSMwZVw+jnzXiNtvGBLwGeExEMcwsHIY1De7YPOw4BjfUWjwYN26/RgqK/JRWmCV/C6C6lj
IWZ8PftsAN8uJjH+mLasKPZjKpUWY45h0OTwoqa2ARecXv/vjxR+sRTDv1jGmFg9K6VNWzR9E0956kilr
okMA5NRhwmfjMCyqnLMnFQYctosPDWuPIKHnz84DjdEsZ54PqtKjl/2Ao0hsohHjNPIQU2tr9KfmFV8/t
Qh+PXcUfByHLrmWGDRa8BwnKxlXhK0MxQWL5hxRQFYloPhy6JrjqVDPpQhCCmkLGUmngxZLZw3Hmnf
3S1o/43VMmyqWnXhYf5PIZxqLZxVvl6FUPvZPB6TkdcbEQixfv9N/ssyn7eUTHwTXOAB8yrjT7YVBwj00Xs
8q1f2wU52OPoYofaElcqlveD/DCzY39h6uQ01to6TryB3TSuBys4GpBYMyKgjfv3BaCVggZDALy0g7XN6Ep
BtKlfQ/yYb6lfnpC8Xu7+KAK/UtAbEZw7cfQ+W4frJjMt4Bk2pStcWTeKfTS7eiGxzDoL7JiftXfSL5nuCCUO
k+5IMtfaEccvJaWmBFUVClaP61mtrGgDVRyO8XjIU1K3wXsFjINv8ddqcHWRYDPN621MJS35fu8paKpEq
fUvrCWMMwCCHAGkFqQaVy8janB5/to+WvgvnY/MtUWWYWTC/Fjw22gEqa/ITTUXymCEIKL8NgzabA
xZu3ljEMZMdkPAMmOYaBy+NF1eRisNdzcDgTr6zG2/qbqn6mYvCW1smtxZWkSAX/XTHSbdMTCWpL2
wtfq6ocDACiSjigXBVvrF85ICT9YCQbaH58GPXGdlWgpiPIYjJzRkoxfAyDKqP1uPjr076LW2HahtR1CtH9n
M/1ttQU9voP05rtsIXauODuTQsi245Zmz8zx65iilAVL+vvv4nHFFgezn4xUwKecOksjxqiZgFCZdu19QhXJ
S0CSn7YLeO0qlQSV5Fuvh63B6cOS7RIEl3Pc8NZLPu84N5uCJhod3Rpp2NJxAcj6W40xtA8xGHUw6Tcq
Nx44ii8mEFHEFOIFVrTIRb91+DL+7c6zsZw16TUC+03DSEXZ0nymCEEPJgsZby6SIh/UzlfKHK/0+l4fFfYlqe
+11QRXKydbtx7B01nAAKZdGTySpJE/xRklexdZMi0mHO6aV4MUw/bHl+pVlFwT08GlaJkdIak+l0kHB7Ui
ymExIEVeAH1RXjeOT8LrD5cWXh09jwYxSdBGUtOV9VQf0yfUHkvBHbOGmI0ynY2CCSARKFjQNwyQ8YF
Js4RXWKGkhvciLdnJiNtFzAaGmBFfuO1ge81l4XVKGcCIPep4zzVTzWdWdPlGXkr+5PeejD0ZJXoODMcUkr
DAadFi3eT8KLSnB5LH58Hg5dMu1QKNh0HJBKWm0CtcNhficUzQ1p1LmrFDXFD1xmNHksVkQoq4Ana

nBzMnFaJbF0vA6yaDFn17dMLWj4/jqyBf1WVVo9A5y4Alz2/3v+5ys37LjEYDcjkhAiwmOT9PxxGcc9eEL
zw8plbgrMphWPtitQnUy57w/VjfMftwbTHBTXY0upweQOexcp7J/hTyQb3c7Jpz/nog5GTVz5rivC1O6e
VYN3m/dj1zWlUH62H7vL+GFPSEy9vORCwDouNtUjcYIDwT9HUpDHLfVypooAOjxdmbfLHY0eSxWRCir
gCWRIG1LTuyoXW7Mpx/bBl+3HR0rsMA1RNDjwiN+g1cLi8+NeuE1gwwRQOI4dcTggiTHRaRvJUqbTACq
2GSbhbV/DCWzmuH7Z+HDo3qLV2RXtk3fb7WThcHpgMvvd+8fton61QPtbUNWkpsrZjPMUikffSKQH
K8AViyuCHjN4fFi1zen/ZvdhiYH1m4+oGqsReIGE8kpmhrZO3vBKblhLy2w4vJhF6u+XzzpaLKYLJK/5Uphv
BywZtM+VB+pCymuM6B3jqgyAABfHa6DI+VQOa4fgLYjttICK35x/WBoWBYWnQZ5mQZYUJA4gyBSIQs2
l2iRKz7F5wWbC0CbW1cixlhwMQ+5uYG3PksRq+lZDMch26RFUe9cZJu0ADhJJRxofwuqYpEQhCrhQFs/8
3KUDDpicRjR8SryWovdZ6HlN7tdOplUjzWlfm1ocoS8FskpmpoCNRaTTnLDXn2kDmu37l+6CFcs6liymAz
a1+wbY1qcbf5RwX6GRoN81zW1uDCgdw7KCq24tbIYz8/ZAQAsywlpcOREEOml2ajDI2t2BPj7CIN8rlhck
fA2BR+vSx1x88hZn+Plk5kqxYYSidzJiM3Dyvbz+WYnMhSC6+MFFYeRht8w8qmDrxndR/b9wrGm1K9a+
FyWYnGKpnQqZ9ZrUdl/L2mpVtVCspgYSBGXweYITDco9DP89dxRmDmpMMS3i88Z7vGyMBI0KOiVg6
WtR8JIRVZcNeKSdrfgEUSiMOu1GNg3V3QBE1MoE5X/VrjweiVKbPPIWZ/j5ZPZURdUqYB3pX5usbuRoTf
Gu3mSUNYscfgNJb/ZDScTGRDYr8KiO8lgT7/yG4Nqm1LJFhiOg15ByU4VdzGSxfhDirgMUoFhJoMWWRk
G1NQ2hvh2LZ01HP/ccQKHahsDCv609wWPIBJBOAplotOD8QsvF0XmInj6ZNKC2oZSPyoVhUkEIDUrFH7
8n270nTCHm4mM/45UKLqTkUb+1ySL8SV1nnQKkmHUonxwN/Tu0SnA8s1ywKv/OCjq2wUAP79uIN78
vxpMvPriPLVwblde8Agi1qhRKJOZ/zYa63O8XUjitaCmW+U9pX7ulGmExylfgK0jk8znreU4dM+1oKzIGn
GO+FTlj20y6DqcuxghDiniMmgZoKqyGKve2Rdg+X5s/mWSASLVR+pgdxZgbmUxtByHPNpBEKTMUVlok
53/NILrM8NxuGNaCva9sy9giktsOKOFD1Rkzp5uH3KELACc5Mu9ZRY2c3S9BJkWQxoJEVcFkeXS3ohGg
3L+p+fMHaLA9A1xwKLXj5AO5bzQySbEi/DYN3m/bh+TD5YNj0KTRHxgxRxGbwC8OLGfSFKt1Kper1Wkz
KVsgQi3fFywPdnLuBCi0v1Qpck+W8jsT5zDIP1Ww6gqHdOSDDq+q0HcHtlcUot0HKWxZfe3Y+i3jk48l2jX
0lJcu51GZJr0l+topU5YLNfBEIOdbPXm6zywGweVjJe8VqfojE/U04ZqqP1gcEnmda9Oiea4GGlQ/4JtoXp
ljL0OwU3zWHGyBCEERkeBkGq9+uDtv6lq75b+1uX57kXd+cFr0++5qBSc+klERNtcK3PjiMdVsPoKqyGC+
mWElv8c0SkeJsnG92RmRJle8htjzU3OvWMwPkbq3CMdMcKEpwJe5JZXGOBF/6GLcMhMwplGm+g1
PkBEDMqtSRCxlZqc2uma/1aNpS6VUFutsHePTiFKOBB+fnQiubTY5U+DxeQhVrnX1aD2XrGYH9S4t4iRb
mOciD+kiEtwvtkpaRfhi/uUFUon7CclJrULHQcw8DmYVHf7ILNw/oXWjVFNVKRDLPkq61WOKB3TkrKC5
FamI3hy2ekCmskqL1XLOaHSBXqdBvjRPyhJy5Bi90tmRrJ4fLinztO4Lqx+ZhC0ebH2TXHQR7hBBEj1Cx067
d+LXkEnY7p+tkT8l5ce/mKwgCiKnJEpAZOL4eDJxrCTheYyHiNcO4V7fwQqUKdbmOciD9kEZcgw6wPKWv
PU1pgxdWj+2DFhj1Yvn4Xnnx1N5av3wWABg9BxAqlhc4lU0x+Ag6kaXuY0G6WfKl2ItaYEVIRT62bj8GA
Mi0yOfIjtgasO7fkzbckB0TZSTz0RagMO9VzTzQ6TuLek2xon4Q7OfBJ0yRjYnZcgNZJOq4FGw2Df0Xo8v
WEPHK62lzXayRJEbFGyHO07Wi/6uVQpDx0p6WbJD26vy8MGzJFIRVZ0a837TFbA9ETo8iFcE/nT4J55GZ
KwYm0ACfyXtHUCwgeM1kZBph0GnBeypbSEWE4ruPNfl4vi4aGfsnrOp0GOTkZ+LG+OWCQmQxaLKsa
hbf/32HRgdee3FL4PmhsblHH03EnB+oHdX1gtWZF9N1KY9HLMKIL3e03DMEvn/soYDMs5KmFY9ty+Hd
QkiW7UmnqpJ5lqs2d6T7m4zEW65tduG/IJ5KfVRpviXz2iZazaNMypu8pSKp0qdqxyJZxGUwahnMu2EI
Tta3+Hf+B47XY0CfXEwe67MG9LRmIMOQuTqgkhntByHxTeWwuFhA/KIOzeSSUclFeHZCKVPz3dLP1E
G9G6lyTy2Sdazqj8OxettFopoNcw2PbJccmjrKSUwiWljoyWAS7umtVm3eA4mHQU8JSOkNKSnsTC5SOR
z57kjEgn0tOJMoFQYAVBpB40LgkicdB4l4j4QRZxFdCRKkGkHjQuCSJxGLUMls4ajobzDtgcbhpvBBEjSBFX
CR11EUTqQeOSIBJHlsUAj9MNI6613B2NN4KIGnJNiQiCIAiClgkQlq4DF4OouWzCYlgoAYhuYNokNCsk
8Q4UOuKRLUnbPjhbberJctnEwRBBONtrUBI8wbR0SDZJ4jlllu4CF4OeOGtvYrlswmCIHg4EUUEoHmDaP+
Q7BNE5JAiLkKL0yuaLxVoK59NEAQhRFgGPBiaN4j2DMk+QUQOKeli2BxuheueBLWEIh0QWleoHmDaK
+Q7BNE5JAiLoLFPfe4Tq71BEEEm0ZcIjIV0j2CSJySBEXlcoOoDakgxuMv50sQBCGALwMuBs0bRHuGZJ8g
locUcRGODLBoZhmV8yUIQjVUBpzoqJDS0TkoHmRBNbOZiy+sRQtTg+VzyYIqHvajsPCaSWwu700bxAd
CpJ9gogMUsRI0DKg8tkEQYQFw3E0bxAdEpJ9gggufUsSD4BgGTQ4vztQ2wGzUwaTT0l6eIAiHcMxjN+S
m2HWQ2dzJbtJ7QzH35KVnCBCIUvCAFUGlwiC6FjlzvtJbFd7gNZUglCGjVbocpgBEEQHQua9+MH9S1BqI
MU8VaoMhhBEETHgub9+EF9SxDqIEW8FaoMRhAE0bGgeT9+UN8ShDpIEW+FKoMRBEF0LGjeJx/UtwS
hDILEW6HKYARBEB0LmvfjB/UtQaiDFPFwqDIYQRBEx0J23p9083400JpKEOqgsyEBbZXBDhchHpgMOp
j1IEclAiivRJaEVKp3E4meJxueFia+6OBqm0ShDKkiAfBcByyTVr07pGNxsYWeDxsstEEARbXBFhRuidTo
MsiwGNTneym9UuoGqbBCEPuaYQBEEQBEEQRBjgOK7jbU85jgOrcOSo1Wrg9XZsazj1gQ/qB+U+0Goj2

9OrGYtq7k+IQ/OWGencb/Eci+ncL6kM9WvsSYU+VTsWO6QiThAEQRAEQRDJhlxTCIIgCIIgCCIIkCJOEARB
EARBEEemAFHGCIAiCIAiCSAKkiBMEQRAEQRBEEiBFnCAIgiAlgiCSACniBEEQBEEQBJEESBEnCIIgCIIgiCRAij
hBEARBEARBjAFsXAmCIAiCIAgiCZAIthAEQRAEQRBjgBRxgiAlgiAlkgCplgTBEEQBEEQRBIGRZwgCIIgCIIg
kgAp4gJYIsUf//hHVFRUYOjQobjtttvw3XffJbtZcWPNmjWYPXt2wGsHDx7ErFmzMHToUEycOBGvvvpqw
PX20kfnzp3DsmXLMG7cOAwbNgw//eIPsWfPHv/1HTt2YNq0aSGtLcXVV1+N9957L+DzTqcTv/nNbzb69
GiUIZXhnnvuQUNdQ6J/RIscPxSWS5cuxahRo1BWVobbb78dx44d819Ptty0F1mLN9HKMGf8++23KCsrw
6ZNm/yvKcl/R4LGyVScPn0aRUUVfIf/xMkfyFh7tSn/hCD8vvPACV15ezv3nP//hDh48yN16663clVdeyTmdz
mQ3LeZs2LCBGzBgADdr1iz/aw0NDVx5eTn34IMPckePHuXeeecdbsiQldw777zjf0976aNbbmFu/7667n
du3dzx48f537zm99wJSU13LFjx7ijR49yQ4YM4Z599Inu6NGj3Lp167hBgwZxn332mf/zDzzwADdp0iRu9+
7dXHV1NXfDDTdwN998cxJ/UfjcdNNN3lwZM7jq6mru6NGj3KJFi7ixY8dyNpstJWSHvchavllWls6LpeLmz
ZtGldYWMht3LiR4zh1c2FHgsZi9Hz44YfckCFDuOnT3Nnzpx/2e320newqS96S+kiLfidDq5srly7q9//av/
tfPnz3MIJSXctm3bktiy2PLjjz9y8+bN44YOHcpdffXVAYL80ksvcWPHjuXcbrf/tWeeeYa78sorOY5rP3104s
QJrrCwkNuzZ4//NZZluUmTJnHPP/8898gjj3A33nhjwGeWLFnC3XrrrRzH+fpwwIAB3lcfui/fvz4ca6wsJD
78ssvE/MjouTcuXPckiVLuJqaGv9rBw8e5AoLC7nq6uqky0J7kbV4E60sEz65njNnToAiriT/HQkai7Fh7dq1
3OTJk0Wvkbypo73qL+Sa0sqhQ4fQ0tKC0aNH+1/Lzs7GoEGDsHv37iS2LLZ8/fXX0Ov12Lp1K0pLSwOu7d
mzByNHjoROp/O/NmrUKJw4cQL19fXtpo9ycnKwdu1aDBkxP8awzBgGAZNTU3Ys2dPwG8EfP3wxRdfg
OM4fPHFF/7XePr27Ytu3bqITT906tQJzzzDAoLCwEADQON+POf/4zu3bujf//+SZeF9iJr8SzaWe7o7N69
G2+++SaefPLjgNeV5L8jQWMxNtTU1KBfv36i10je1NFe9RDsxFv58ccfAQ9evQleL1r167+a+2BiRMn4o
UXXsAll1wScu3HH39E9+7dA17r2rUrAODUqVPtpo+ys7Mxfvx4GAwG/2vvv/8+amtrUVFRldkPdrsdjY2N
OH36NHJycmA0GkPek079wPPII49g9OjReO+99/D444/DYrEkXRbai6zFm2hluSPT1NSE++67Dw8//HCIn
CnJf0eCxmJsOHZ4MBoaGnDzzTfjsssuw09/+INs374dAMmbWtqr/kKKeCt2ux0AAhY0ADAajXA6ncloUsJ
xOByivx/wBSe21z768ssv8eCDD+LKK6/EhAkTRPuB/9vlcsFut4dcB9K3H37+859j48aNuP7667FgwQJ8/fX
XSZeF9ipr8SZcWe7l/PrXv0ZZWRkmT54cck1J/jsNBajx+Px4Pjx4zh//jwWLVqEtWvXYujQobj99tuxY8cOk
rcYkOw1Kxp0ym/pGJhMJgC+xYn/N+B7gGazOVnNSigmkykceYF1GKxtMs+++uCDD3Dvdfdi2LBhWLFiBQ
DfwAzuB/5vs9ks2k9A+vZD//79AQCPP/44qqursWHDhqTLQnuUtXgTiSx3VDZv3ow9e/Zg27ZtoteV5L8j
QWMXenQ6HXbt2gWtVuvvw+LiYhw5cgTr168neYsByV6zooEs4q3wxxVnzpwJeP3MmTPo1q1bMpquCL
p37y76+wGgW7du7a6PNmzYgEwLFuHyyy/HSy+95N899+jRQ/Q3WiwWZGVloXv37jh37lzoE+nfmhoa
MB7770Hj8jf02j0aB///44c+ZM0mWhvclavllUlsqGzduxNmzZzFhwgSUIZWHRkWMAPDoo49i7ty5ivLfk
aCxGBsyMjLCFEAAKcGowOnTp0neYkCy16xolEW8IQEDBiAzMxO7du3yv9bU1IRvvvkGI0aMSGLEseIESP
wxRdfwOv1+l/buXMn+vbtiy5durSrPnr99dfx29/+FjfffDOeffbZgOOq4cOH4/PPPw94/86dOzFs2DBoNBp
ceumlyFnWH7QJ+PIQnz59Om36ob6+HkuWLMGOHTv8r7ndbnzzTfo169f0mWhPclavllGlsqK1aswD/
+8Q9s3rz/x8ALF68GI8//rii/HckaCxGz5EjRzBs2LCAPgSAawcOoH///iRvMSDZa1ZUJDVnS4rx7LPPciNHj
uQ++OCDgByTLpCR2U2LC/fff39A+p/6+npuxlgR3P33388dOXKE27hxlzdkyBBu06ZN/ve0hz46fvw4N3jw
YG7BggUB+VzPnDnDNTU1cYcPH+YGDx7MPf3009zRo0e59evXh+ReXrJkCTdx4kRu586d/jziwr5MB+bO
nctdeeWV3Oeff87V1NRwS5Ys4UaMGMH98MMPKSEL7UHW4k0sZJnwIUXfqEb+OxIOFqPD6/Vy06dP5
6699Ipu9+7d3NGjR7knnniCKy4u5mpqakjelQ96S+kiAvweDzcU089xY0aNYobOnQod9ttt3HffdddspsVN
4IFmeM4rrq6mps5cyZXXfzMXx755dxrr70WcL099NGLL77IFRYWiv53//33cxzHcR999BF3/fXXc8XfXdzV
V1/NvffeewHf0dLSwv3qV7/iHg8fzg0fPpxbsmQJ19DQklyfEzFNTU3co48+yo0ZM4YrKSnhr31Vu7w4cP
+68mWhfYga/EmFrJM+BAq4hynLP8dCRqL0VNxV8c98MAD3JgxY7ghQ4ZwN910E7d7927/dZK38GhP+
gvDcZRMliAlgiAlgiASTcd1EiQlgiAlgiCIJEKKOEQBEQBEKAVLECYlgCIIgCCIIkCJOEARBEARBEEmAFHGC
IAiCIAiCSAKkiBMEQRAEQRBEEiBFnCAIgiAlgiCSACniRMJ54IEHUFRUJPvflVdeiUGDBqGurk7ye+bPn4+JE
yeCZdkEtp4gUp/Zs2eHjKkBAwZg2LBhmDZtGrZs2RL1PXbt2oWioiJ/yehNmzahqKgI33//fdTfTRDJYvbs2R
g0aBD2798ven3ixl44IEHEtwqoj2jS3YDil7HnXfeif/5n//x/7169Wp88803Wllypf81r9eLn/3sZ3jvffwi1/
8luQ7zp49i48//hh33HEHNBrTxJEMIMGDckjz7q/9vr9eLHH3/En//8Z9x3333o3Lkzxo8fH7P7TzgAW
+++Sa6du0as+8kiGTg9Xrx4IMPYtOmTTAYDMLuDtHOIUWcSDi9evVcr169/H/n5ubCYDBg6NChAe/r168f
tm3bJqqlb9u2DSzLYtq0aXfULUGKJ5mZmSFjCGDgJRuH0aNH9Y0mTTFVxHNzc5Gbmuxz7yOIzJGVYUjR
45g1apV+OUvf5ns5hDtHDlIEinL9OnTceDAAXz77bch1959911cdtll6NmzZxJaRhDpi9FohMFgAMMwAIC
Ghgb85je/weWXX47i4mKMHDkSCxYsCHExeeONN3DVVvVehpKQEs2bNwsmTJwOui7mmfPrpp/jZz36GS

y+9FOXl5bjnnntw6tSp+P9lgoiCgQMH4oYbbsC6detw4MAB2fe+/fbbuO6661BcXlWJEybgHrdegNfrBQD
87ne/w8iRlWpCjX966CEUFRXhv//9r/+1P//5zXg2bBhclhcaGhpwzz33YMyYMRgyZAimTJmCzZs3+9/Lj7P
q6mpMnToVJSUImDx5Mv75z38GtOv777/Hffdh7Fjx2Lw4MEYPXo07rvvPjQ2NrvfM3HiRDz33HN44ok
nMGLECSXI+O+++7DuXPnAr5rz549mDVRfKpLSzFy5Ejcf//9aGhoCGjToEGD8Pbbb2PMmDEYOXlKjh49q
rq/OzqkiBMpy5QpU6DT6bBt27aA1w8dOoRDhw5hxowZSWoZQaQ+HMfB4/H4/3M6nTh+/DgefPBbTL
S0YMqUKeA4DvPmzcOnn36Ke++9F+vXr8fChQuXy8eOALeWDRs24NFHH8X48eOxevVqJJaW4pFHHpG
9/+bNm3HrrbeiR48eePbZZ/Hggw9i7969uOmmm3D27NI4/3yCilqHHnolOTk5ePDBB+FyuUTfs2bNGjzy
yCMYPXo0XnrpJdx88814+eWX/WNjwoQJOH/+fIAyv3PnTgDA7t27/a99/PHHGDnmDAwGA5YuXYpjx47
hN7/5DV5++WUMGjQI999/v/9zPPPmzcMVV1yBlStXom/fvrj77rvx0UcAQDsdjvmzJmDY8eO4dFHH8X
69esxZ84cvPfee3juuecCvuf111/Hl19+id/97ne455578NFHH2HevHngOM7fzl/84hcwmUx4/vnn8dBDD
+Hzzz/HnDlZ4HA4/N/j9Xxyiuv4PHHH8eDDZ6lfv36Rdr1HQ5yTSfSlry8PEyYMAF///vfxXjYv/rmzdvRk5
ODiZOnJIE1hFEarN7924MHjw44DWGYVBYWlg//OEPuPzyy3H69GmYzWbcf//9GD58OACgvLwc//3vf/H
mm28C8Cn0q1evxrXXXouHHnolADB27Fg0NzfjTfEL03y7JYsWIFxo4di2eeecb/+rBhw3Dttddi/fr1uO++
++LxswkiJnTq1AnLly/HXxfclqicuHCBaxevRo33XQThn74YQC+cdG5c2c8/PDDuOWWW3DppZcilyMD
O3bsQEIJCF773//ihx9+wODBg7F7925Mnz4dDocDu3fvxq9//WsAwOeff44FCxZg0qJAICRI0eic+fOlb7q
s2fPxoIFCwAAFRUvMdp1KlatWoXx48fxlkT6N69O37/+9/jkksuAQCmGjUK1dXV+PzzwO+R6PR4E9/+h
OysrIA+FzMFixYgl8//hjxo3DM888g759+2LNmjXQarUAgNLSUlX33XXYuHEjbr75Zv93zZ8/HxMmTihB73
csyCJOPTT09HbW0tqqrAfh23du2bcOUKVMoiYgZBg8eDDeecdvpPOO1i9ejUKCwwRp08fPP/887j6
6qsBAN26dcOrr76KSy+9FN9//z0+/fRTvPbaa/jyyy/9VsDjx4/j7NmzuPzyyW+O/5prrpG897ffou6ujpcf/3
1Aa/36tULZWVllcoAQaQIEydORGVIJdatW4evv/464NrevXvhcDgwceLEgJMn3kD06aefwmAwYMyYMfj
ss88AADt27EDfVn1x5ZVX+sfArl274Ha7/fEa5eXleOGFF7B48WK8/fbbqK+vx/33349hw4YF3H/q1Kn+fz
MMg5/85CFyt28fHA4HBg4ciNdfx0XXXQRTpw4gY8++gjr16/H8ePHQ6z7EydO9Cvh/N86nQ67d++G3W
5HdXU1xo8fH3DCdskl6Bfv3749NNPA75r4MCB0XR3h4Us4kRKM27cOFitVmzbtg2lpaX45JNPUF9fT24p
BKFARkYghgWZ4v+7tLQUlZWVuPXWW7Fp0yZ/YOXWrvVx7LPP4tSpU+jcuTMGDhwk8nk/9z58+cBADk
5OQHfb7VaJe/N+5jm5eWFXMvLy8M333wT8e8iiETy8MMPY8eOHXjwwQexceNG/+u8jN9+++2inz5g
wAYPz48Vi+fDmcTid27NiBkSNHYuTikXjuuedw8uRjFpZxyygpKUGXLI0AAM899xxeeukl/O///i/ef/99aDQ
aXHbZZVi+fDkuuugi//cHZyfq0qULOI5DU1MTTCYT/vSnP+Gll17CuXPnkJeXh+LiYpjNZly4cCHgc926dQv4
W6PRICcnB+fPn0dTuXNYIsXLL7+MI19+OeQ3Go3GgLT8fotcVxISkCJOPTDQ6nQ433HADNm3ahAcffBCb
N2/G0KFD0b9//2Q3jSDSiry8PCxbtgx33XUXHn/8cTzzDPYs2cP7r//fsyePrTVVvX+Rfmp57CF198AaBN
AQ/26w4O6BLSuXNnAEB9fX3ltbq6uhClniBSIU6dOuHXv/41FixYgNWrv/tfz87OBgCsWLECFr0Cfkcwkd
P348XC4X9uzZg127duHhXh/GkCFDYLfy8Pnnn2P79u0B1u2srCwsXboUS5cuxfHjx/Hvf/8bq1evxm9+8x
usXbvW/z5eweapr6+HVqtF586dsW3bNjz55JNYunQppk2b5t9033XXXSH50YXBm4Dv1LmxsRG5ubnly
MgAwzD4xS9+geuuuy7kN5rNZrXdSMhAriEYjN9+nScPxSwn3zyCT788EPceOONyW4SQAQIV199NSoq
KvD3v/8dn3/+Ofbu3QuWZbFoOSK/Eu71ev1H6SzlOk+fPujRo0dlVob//Oc/kvfp27cvrFyr/v73vwe8/t133
+Grr74KOWYniFRm0qRJuP7667F27Vp/tpDS0lLo9XqcPn0aQ4YM8f+n0+nw7LPP+rMHwA1WDBoOCK+
//joaGhowcuRI6PV6XhrppXjrrbdQW1vrd/v64YcfMH78eP9Yy8/Px2233YbLLrSSJEvRBx984P83x3H417/
+hUsvvRQGgwFffPEfSrOzMXfuXL8S3tLSgi+++CKkAN727dsD3FX+/e9/w+PxYPT0cjMzMSgQYNw/Pjxg
N9YUFAF154wV/Mi4gOsogTKU/fvn0xbNgwPPHEwCAa6+9Nsktloj05aGHHkIJZSUee+wxPPjggwCA5c
uXY/r06Th//jz++te/4tChQwAAm82GzMXm3Hvvvbjnnnv8MMP4+qrr8ZXX32Fv/3tb5L30Gg0WLJkCR
588EHcc889qKysRGNj11auXlOnTrhlltuSchvJYhY8cgjj2Dn3p3+U56cnBzMnTsXf/jDH9Dc3lzy8nKcPn0af/
jDH8AwDAYMGOD/7IQJE7Bq1Sr/BhXw+YKvWLECPXv29L/3oosuQvfu3fHYy4+hubkZvXr1woEDB/yZTI
Q89dRTcdQd6Nu3L95++20cO3YMf/nLXwAAJSUl+Nvf/oYnn3wSl19+Oc6cOYP169ejvr4enTp1CvieU6dO
4Y477sCcOXNw6tQpPPvss6ioqEB5eTkAYMmSbj99tv945jPjJdXY0777wzPp3dwSBFNEglbrzRjz00EOY
Pn06Mjlykt0cgkhb8vPzMXv2bLzyyis4duwYli1bhj/96U/45z//iby8PJSXl2PlpYVysGABvvjiC4wfPx7XX389
NBONvq9ejS1btqCwsBDLly/HkiVLJO8zbd0ZGRKYM2aNViWYAEyMzNRUVGBJUuWyPqXE0Qq0rlzZ/z6
17/GwoUL/a/dffdsFqteP3117Fu3Tp06tQJo0ePxpIlSwlCIHIFOTIkf7XeEU3uKjWypUr8eyzz+IPf/gDGhsb
0aNHdYxcuDDEF/3Xv/411qxZg++++w6DBg3CK6+84s98NHXqVHz//ffYuHEjXn/9dXTr1g3jx4/Hz372Mzz
yyCM4duyYP73gdddh+zsbnX9992wWCyYOnVqQlaYsWPHYv369Vi5ciUWL14MvV6PwYMH409/+pNo

{

"data": {

"image/png":

"iVBORw0KGgoAAAANSUUEUgAAAgkAAAGmCAYAAAD2wBdeAAAAOXRFWHRTb2Z0d2FyZQBNYXRwbG90bGliIHZlcnNpb24zLjUuMywgaHR0cHM6Ly9tYXRwbG90bGliLm9yZy/NK7nSAAAACXBIWXMAAA9hAAAPYQGoP6dpAABg+EIEQVR4nO3dd1hT1/8H8HcS9IRQhgLiQtygoiJDFftHVWrtg5s62rtsLWuOtpaZy v2q3Vvf1p3rVVxw/e2oBUVUKEO9t4rgdzfH2hqSjQYgwHzfj1Pnsec3HPv5+Qa8sk5554rEgRBABEREdF/i HUdABEREVVNTBKliihIJSYJREEpBKTBCililKJSQIRERGPxCSBililVGKSQERERCOxSSAililKvMCCQERGRSkw SililqpnVq1cjKCjoudtkZmZiwoQJ8PLyQvv27fHDDz+gsLDwhY5j8DJBHErEOau1detWLF68GO3atXvuduP GjUNhYSH+7//+Dzk5OZg+fToKCgrw008/VfhYTBKliiliqgeTkZHz//fe4cuUKXF1dn7vt9evXcfXqVRw6dAgN GzYEAMyaNQujRo3C119/Dxt7+wodk8MNRERE1cDt27dhaGil/fv3o3Xr1s/dNjQOFLvr11YkCADQvn17iE QihIWFVfiY7EKgliJ6RQIDA5/7+okTJ575WteuXdG1a9cKHS5ORmOJo5KZUZGRqhRowYSExmrtA+giiYJB w2b6DoEemx+jzW6DoGoSlpnMlfXldBj7r8dq/RjaO17yd9JO/tRo7CwEEZGRuXKjY2NUVxcXOH9VMkkgY il6HX0vJ4CbTlxMYFUKi1XXlxcDDMzswrvh3MSilil1BAZirTyeFUCHByQkpKiVCaVSpGVIQU7O7sK74dJAh ERkRpiA5FWHq+KI5cXkpKS8PDhQOXZ1atXaqBt27at8H6YJBAREVVzpaWISE1NRVFREQCgdevWaNOm DcaPH4/w8HBcvnwZ3333Hfr27Vvhyx8BJglERERqiQzFWnlUlsTERPj6+uLQoUNI8YpEWLZsGZycnPDBBx /gq6++gr+/P2bOnPIC++XERSilijVe5VBBRfz4449Kz52cnHDnzh2IMltbWyxZsuSljsMkgYiIS1XOemwKuFw AxEREanEngQilil1qtpww6vCJIGliEgNDjcQERERPYU9CURERGPwuIGliihUEkn0M0ngcAMRERGPxJ4Elili NcR62pPAJIGliEgNkVg/kwQONxAREZFK7EkgliJSQyTRz9/UTBKliiljU4JwEliliUolzEoililiewp4EliliINTjcQER ERCpxxUUililKip7AngYiISA2RWD9/UzNJICliUoNXNxAERE9hT0JREREavDqBililKJww1ERERET2FPAhERk Rq8uoGilihU0tfhBiYJREREaujrxEX97D8hliilitdITQEREPaAHG4iliEglfZ24qJ+tJililrUqlCQkYjdXdhxERERVik gs0sjuqnQcEOXLl3g7++PAQMGoEuXLPBIJUD12vBpK49/P8+gNB3P0PG2au6Dqda8vKsiTFBrqjvYo6M LCn+OJiA7X/EPbdON//a+OC9eqhjb4LElCJs2R2LlieVE909GzvCrpZxubo9h15Adk4JAGDFTx5o1cy63DYjx 4fhTnTeS7SqtLVuTgf0vmZ+78WnoVx029o1iA9YNaqLWoP/hDGzvVQkp2FrCP7kRGy+5nbiwwMUWtQ EKz8AiGxsol07hHS9/2G3lunX13QVVR1/ILXhgoICT/++CP27duHcePGoWbNmujbty8GDBiA+vXrV3Z81Z aJkwPaH1wPwpxWug6l2mrexBILvm2BE+dTsW7LA7RqZo2xHzaARCLClt2xKut07lQL301oit9C4nEILAN+ HWthxnh3yGRynDiXCgCwtjKAXS1jLN8Qg/CibKX6eXklin83dDXHjj9icepCqtl2D2MLtNzSsq+X5+LjdfK7d vfuzaGvuuMvYcTtNzS14dJY3c4T52FnltknLZzE0zdW6D2sFGARIKMvTtV1qkzfhos2nRARshu5N+8DpMG jeE49msYWFkj88i+V9wCqgoqICT06dMHffr0QXJyMvbt24f9+/djw4YN8PDwwMCBA/HWW2/B1NS0sm OtHkQiOAX1RdOfpgD6mXhqzYghrrj3Tx7m/C8KAHDIWiYMICIEDXTBrv3xkErl5ep8HFQfpy6kYum6GAD A1euZsLi0wKhhroovpsb1LQAAZy6lISGpSOWx6zqawNzMAJdCM3D7Tm5INK9a0eW5+O/7b1fLGH26O +D3A/E4eT5VZR0Cag0ajqL7MUhcugAAkP93KEQSCWz7vY/MQ39AkEqVtjd2bQJl9J5i3b4R6Xu2AwAKb l6HvLgldkNHIvvsN5AX5L/ydlQV+tgT8EITf+3t7TFmzBgCOHAAu3btQvPmzRECHAXfX198++23uHGD3X5 WrZqgxflfELdl/7+cLKuW6m2DA1E8GxZA2cvpymVn7qYBnMzA5XDAA52xnBxMsPZS8p1TI9iHXMdMzg 5liWYjRtYIL+g5JlfSc/X1737uvfsMJ/6fpc/NfnlxuguFiO1Zvva9Aa/SAYMIRZ81blvXpBqTz38jllzMXh6t6iX B1jJxcAQF7oZaXygl3IDYxhVnz1pUXcDUgEou18qhuNL4EsmXLlmjZsiW++eYbXLhWAUuXLsX777+PyMh lbcZX7RQ+SsRp9zdQFJ8MG//2ug6n2qrjYAOjQzEexRcqlccnld13qWuK0L8zlv5zdTYHAMQmKNeJSyz7A nJxMkVcYiEa1bdATm4J5kxthnata0IsFuFSaDqWr11BembZr6vGDSxQUFCCz0Y0hE97W5iaSHAtPBNL1sU g9j8xve50fS6e1ryJJbr62mHu4igUFJZqrY2vG0N7B4gNjSBNUJ4zlk0qG54xquOEgnDIYZySnJyyurXtUfzo3 wTMMyMHx8T4dKzNkqqJeKq25c+cOFi9ejFmzZuHevXvo2bOntuKqtmSZ2SiK59UGL8vCvGxybEFBiVJ5QW HZc3Oz8vmtuVlZnXw1dRo3sEBtWyPcic7D5Fm3sGx9DDxa1MCy+a1hYlZ2kWjUwAJmZgblzSvBtLm38d PSO3CqY4oVP3rA1sZliy2t+nR9Lp42pL8zEplLcewUP2PPIzYrS9LkhczZ548l5ialatTEHED0qQE2l/4FGYtP CA2NSubxzB0FAS5HGJjk8oPvAoTS0RaeVQ3L9yTkYiJJCQEISEhCA6OhpNmzbFiBEj0KdPH1haWIZGjKSH RKLnf5gEQShXJlYzIiXl9X5aelDI MoFRN0rG+sOj8jG/Uf5WLnAEz262mPv4USs3Xwf236PxY3b2Y+3AW5F 5mDLsI8M6lOXKzfpT1e3rs/FE7VtjeDboRaWrY9BafkpEPQUkej5v/9UnTOUICB27jQ4jp0Al+/L5jHIMtKR s nEF6oyfDqG44kNCryN9nZNQoSqH0zsbR44cQUhICK5duwZLS0v07t0bwcHBCHd3r+wYSQ89+QVqZqp8 ua3Z41+gefkl5eo8KTMzVf5v/eRXa35BWff07Ts55erejMxBbl4JGj2eixD9oPwErYtKljyMLVBsoy90fS6e6

NypNgQAF55L0aAV+qX08QRD8X96DBQ9DM+YgChLSsCj7ydAYIUDEktLSBPjYVjLDiKxGKV5+j2BtzrOJ9C
GCiUJPj4+EAQBHTt2xMKFC9GtWzcYGeIXlyu9WvGJhSgpFVDXUfmqmScT3IRdhvgovuDxNia4909euToP
YvNhbiZBQKfaiLibg/uP/t2HSAQYGoqQIS2DRAY8EWC2PjCcl9ixkZiZObltNPIakKX5+JpnbxscONWFjKz9
Ov914QsOQFCaSmMHOoolT95Lo17VK6OyMgllh38UHjnNmQpSSjNyQIAmDRoDAAouh9duUFTIVSh1K
ikpAQnTpzA+vXr8fbbbzNBoEonlQm4cSsLnTvVvVioP6FQLuXkliLhX/lDnFGIREpIKEEcJXKdzp1qIjS9AUkoxZ
DI5xn/SCEEDXZS28e1gCxNjCa7dzEKpHBgxB4+G9FAaRu3hhao62iK6+FZ2mlkNaHLC/G0po2tcDOyfM8
DISfZCilvAnLDj5K5ZYdfFGan4fC6Dvl6S5UwH7kZ6jR7e1/C8Vi1HrzHUiT4pUmM+ojrriohqGhYWXGQVT
Opl2PsHh2K8ye0gW/H/0xCC3crDO7vjFWb7qO4WA4zUwnqu5ghPrEIWY9/3W/c8RDTv3JHTq4M56+kw
7dDLQT62eG7nylAlH3hbdkdi1FDXZGRJcPIOHQ0cDXHiMGuOHs5DdceJwAbtj3EjK/dMWN8Exw5lQIH0
2OMGuKK6Pt5OHwySVdvic7o8lwAgH1tY1haGOBBR5ep/+iOn/fBudvf0Sdr2cg++RRmDZpBps+A5G6d
T0EaTHEpmYwcnKBLDkRpTnZgFyOzKMhsOnZD7L0VEgt4lCzRx+YNmmOuAUzAVXzGPRIdfyC1wbeBZK
qrGvhWZgx/zZGDHhFvOnNkZZejBUb/8GOvWWXdTVpalGl8z0wd3EUDp8om+1++EQyJAzFeL+fE97u5o
iEpELM/l+k0qI7m3Y+RfA2FP171kW/txyRnVuCfYcTsH77Q8U2R04lQyqTY0h/Z8yf3hxFRaU4ezkNqzbdh
1wPJ83p8lwAgE2Nst7L3Lzy8x9ltYJbfyP+59moNSgldSd/j5KMdKT+uhYZB34HAJjUbwSXHxYicXkwsK8fB
wCk7doMCAJs+74HiYUlih7EIHbeDBSEh+myKaRDikHlNFdl7u7umDFjBiws1E/Y6tu370sHddCwyUvvg7R
jfo81ug6BqEpaZzJX1yHQY+6/Hav0Yzz6pL9W9uOyao9W9vOqVLgnYc6cOWq3EYIEWkksililqhION6hx4c
IF2NraVmYsREREVIVUKElQt5gKERHR64zrJDxHBAyTEBERvb709MdyhVKjfv36wdjYuLJlJlIoIqKqJ0J8+fPr
+w4ililqixOXcQiliKVOCeBililVNLXngT9Tl2ililHfYkEBERqcHhBililKJww1ERERET2FPAHERkRr62pPAJIGli
EgdPZ2ToJ+tJililrXYk0BERKSGvt7okEkCERGRGvp6CaR+tpqililjUYk8CERGRGry6gYiliFTT0+EGJglERERq6G
tPgn6mRkRERNWMXC7HkiVL4OfnBw8PD4wePRqxsHP3D49PR0TJkxAx44d0aFDB4wfpX7JyckvdEwm
CURERGqIRGktPF7GihUrsG3bNsyepRs7duyAXC7HqFGjIJVKVW7/1VdfISehARs3bsTGjRuRkJCAzz777IW
OySSBililHbFIOW8NSaVSbNiWAEpGjUNAQAAdC3d2xaNEiICUI4dixY+W2z8nJwdWrVzF69Gg0bdoUzZo1
w5gxY3Dz5k1kZWVVvNkaR0xERESvRFRUFPLz8+Ht7a0os7KyQrNmzfDXx3+V297ExATm5ubYu3cv8vLyk
JeXh3379qF+/fqwsrKq8HE5cZGliEgNbS2mFBgY+NzXT5w4obI8KSKJAODO6KhUbmdnp3jtaUZGRvjxxx/x
3XffoV27dhCJRLCzs8OVLVsgfoG2sCeBililHIDZFypJWHpgoLCwGuffk/zdjYGMXFeW2FwQBkZGR8PT0xN
atW7Fp0ybUqVMHn376KfLy8ip8XPYkEBERvsLPilQx8TEBEDZ3lQn/waA4uJimJqaltv+8OHD2LJIC06dO
gULCwsAwKpVq9CISxfs3r0bH374YYWOy54ElilidURI7Tw09GSYISUIRak8JSUF9vb25bYPDQ1F/fr1FQkCA
FhbW6N+/fp4+PBhhY/LJIGliEgNXQ83uLu7w8LCAleuXFGU5eTklCilAl5eXuW2d3BwwMOHD5WGIGoKC
hAXFwdXV9cKH5dJAHERkTpisXYeGjlyMsKwYcOwcOfCnDhxAlFRURg/fjwcHBzw5ptvorS0FKmpqSgqKgl
A9O3bF0DZWglRUVGLiorC119/DWNjY/Tv37/izdY4Yililnplxo0bhwEDBmDGjBkYPHgwJBII1q9fD0NDQy
QmJsLX1xeHDh0CUHbVw7Zt2yAlAj744AN89NFHMDQ0xLZt22BpaVnhY4oEQRAqq0GaOmjYRNch0GP
ze6zRdQhEVdl6k7m6DoEec/+t/GJC2pb7ywSt7Mfyy5+1sp9XhVc3EBERqaOnd4HUz1YTERGRWuxJICliU
knfbxXNJIGliEidl7yDY3Wln60mliliditQEREPa6HG4iliEgVEYcbilililP5VJXsSulBP1TH1yBhdh0BPyT4Vpes
Q6LG/5J11HQI95v4qDsLhBililJFpKeLKTfJlCilUkeknz0J+pkaERERkVrsSSAilIKHww1ERESkEocbililP7Fng
Qilil1eHUDERERqcYVF4mlilj+xZ4ElilidbjilhEREanCGzwRERERPYU9CUREROpwulGiliHuoTPhBiYJRERE6n
DFRSililqJ/sSeBililHa64SERERCrp6ZwE/Ww1ERERqcWeBCliInV4CSQRERGPxOEGlilion+xJ4GliEgdPV0n
gUkCERGRONp6CaR+tpqililjUYk8CERGR0hxulCililpX09OoGJglERETq6OmchJdKEmJiYnD37lOYghqiQYM
GaNcggbbilililH3TKEkoLi7GhAkTcoLEQCICAAAQIUto0qULFI9eDCMjI60GSUREpFN6OidBo/6TRYsWITw
8HMuWLCnff/2FK1euYOnSpYiliMDSpuU1HSMREZFuicTaeVQzGkV84MAB/PDDdwgMDISlpSWsra3RrV
s3fP/99wgJcDf2JERERKQDGg035Ofnq5x/UL9+fWRkZLx0UERERFUKhxsqzs3NDUeOHClXfvjwYdSvX/+lg
ylilqpSxGLtPKoZjXoSx04di08//RSRkZFo06YNACAsLazHjx/Hzz//rNUAiYiISDc0ShlCAGlwyy+/YO3atTh9+j
QEQUCTJk2wePFivPnm9qOkYiISKcEPR1u0HidhDfeeANvvPGGNmMhliKmqmrhlQnaUOEkydmyZRg5ci
RMTU2xbNmy5277+eefv3RgREREpFsVTHL27NmDoUOHwtUHFHv27HnmdikRqNonCV6eNTEmyBX1Xc
yRkSXFHwcTsP2PuOfW6eZfGx+8Vw917E2QmFKELbtjceRkstI2ezZ2hF0t43J1ew69gOycEgDAip880KqZd
bltRo4Pw53ovJdolX4zqWsP/78PIPTdz5Bx9qquw3ltXNw6j5N/LEZKQJQsrGzh1WUlvLuPgOgZXBmIsmKc
2b8cNy8fQH5eBhycmqDzO5+jUQs/pW3mf9YW8tISpbqGxmaYtuJapbanOou5fR6n/1iE1MRomFvaol2
Xoej45vPPxdmQ5bh1JQQFeRmwd3KHf+/P0fA/52LBF21UnospY65XanuqHPYkPN/JkydV/vt107yJJRZ82
wlnzqdi3ZYHaNXMGmM/bACJRlQtu2NV1uncqRa+m9AUv4XE40pYBvw61sKM8e6QyeQ4cS4VAGBtZQ

C7WsZYviEG4RHZSvXz8v79ADZ0NceOP2Jx6kKq0jYPYwu03FL9YeLkgPYH18OwhpWuQ3mtxMX8jW1Lx
qKF11vo0vdLPLoXhuO7F0luL4Xv22NU1tn/fzNw98YpBPb/GrYOrrhxYS+2/fIJPpi0CfXc2gEAUuLvQlSagn
6jg2FT21IRVySWvJJ2VUDxMX9j59JP0MzrLQQ8Phcnfg+GXF4Kn7dUn4sDm6bjXvgpdOn3NWzs6yP80h/
YsfRjBE3YDjf/nlt3RgajZm0XRV1xNZyl/7I4J4EAACOGuOLEp3mY878oAMCVa5kwwlgQNNAFu/bHQyqVl
6vzcVB9nLqQiqXrYgAAV69nwsrSAKOGuSqShMb1LQAAZy6lISGpSOWx6zqawNzMAJdCM3D7Tm5INE+/
iERwCuqLpj9NAfTz812pTu9bCkeXpug3egEAoFFLP5SWluDcwdXo0G04DI1MlLbPSovDzcsheGvot/DqOg
QAUN+9Ix5FX0PoqW2KJCHpURTEEgM0a9sdBoZc4r0izu5fCgeXpug7MhgA0LCFP+SIJbhwaBXaB6o+F7e
uhKDHkO/QrstQAGXnli76GkJpB1MkCcmxZeeiadsePBd62pNQ4Va7u7ujadOmFXpUV4YGlNi2rIGzl9OU
yk9dTIO5mYHKYQAH02O4OJnh7CXIOqcvpMK5jhmchE0BAI0bWCC/oOSZCQLwbyJx7z6HFbTBqlUTtFj
+A+K27MXfH07WdTivIRKZFA/uXIV7m25K5c3adYe0KB+P7oWVq2NhbYfR3/6GVh37KMpEYjHEEGkZfJF
WVJsJGo51OeXUGWVYKR4ePcKmnqgTyRv2rbsXMRGqz4Xl6bvRosO/zkXYgOUyooVZcmxkbB1aMBzocc
q3JMwb948xdhWfHw81q5di/feew+enp4wNDTEzZs3sXXrVowdO7bSgq1sdRxMYWQoxqP4QqXy+ISy5
y51TRH6d6bSa67O5gCA2ATlOnGJZcmAi5Mp4hIL0ai+BXJySzbNajO0a10TYrEII0LTsWRtDNlzy/5ANm5g
gYKCEnw2oiF82tvC1ESCa+GZWLIuBrH/iYnUK3yUiNpub6AoPhk2/u11Hc5rJTM1FqUIMtjauyqV29iVdU
mnJ91Hw+Y+Sq8ZGBqhjmtLAIAGlyMnKxmXjm5EZkos3hoyQ7Fd0qMoiMUG+PXnEYiNvg6JgRGaeXXH
mwMnw9jUonlbVg1lpak+FzXt6gEoOxcNmql/F1eObUBm6iN0H/zUuYiNhFgsWdZFIxAXfQ0SAyM0bdc
D3QZ0hrGJnp0LDjc8X//+RX/HjZsGL799IsMGDBAUdatWzc0bNgQmzZtwsIRI7Ub5StiYV425IIQoDxJp6
Cw7Lm5Wfm3y9ysrE6+mjqNG1igtq0R9h/Nw6598XB1NsPloa5YNr81PvoyDEXFjRqYAEzMWpK5pVg2t
zbcLAzxkeD62HFjx748MswpGdlQRUny8yGLDNb/Yb0wooly4bD/vulbWxSljQXFz2/N+z84bU4uWcRAK
CN/0A0aNYJACAIAPLj7gCCAE//AfDvNRbxD27izP7ISEulwYeTf4VID8fDn6eooOxcGJk841wUPv9cXDyyFq
f++B8AwNNvEOo/dS5SnpwLv4Hw7TkWiQ9u4mzlMqQIRGP4pC36dS70qa1P0WhOQnh4OOObOnVuuVf
WrVoiOjn7poHTIWbOAn3hyW+ynicXPryOXI9X5aeldIMoFRN0r+0CHR2Tj/qN8rFzgiR5d7bH3cCLWbr6P
bb/H4sbt7MfbALcic7BlpRcG9a6LIZvua9IsIq0ThPJzc54mUjN+26R1F7g0aoNH0WE4s38FSqTFZXMBBAG
Dv1gBM0sb2NVtDaco18QLFta18cfaSYi+fR6NW/prR2vA7XnQs2XW+PWXeDUqA1i74Xh3IHlkMmKyu
Y2CAIGfb4S5hY2qP3kXLh5wdyqFvatn4SY2+fQqGVnrBWDqiaNkoR69erh4MGD+PTTT5XKd+7ciUaNGm
klMF140htgZqo8i9rscW9AXn5JuTpPysxMld/KJz0I+QWIAIDbd3LK1b0ZmYPcvBI0ejwXlfpBrltEpKL8DC2
QLENUVVgbGoJACguUv4/++RX65PXn8XOyQ1AWQlgLy3F6X1L0bX/V7C2rQNX9w7ltndrVfZlIBwbxSThP
0wev9fs/56Lx705JmqGaOzqPj4Xbl6Qy0twdv9SdOk7vuxcNCl/Lhq3CgAAJMfd0askgVc3vIBx48Z3LhXu
Hjllq2bAm5Xl7r168jMjISa9eu1XaMr0x8YiFKSgXUfTzZ8lknkw9VXYb4KL7g8TYmuPdPXrk6D2LzYW4m
QUCn2oi4m4P7j/7dh0gEGBqKkJUt0QMvBfgj9j4wnlJhbGRGJk5Mu00kkgLbOxcIBJLKJHySKn8yfpajuXv
EpuVfo9/li+hVcfeMDD8d70Qx3rNAAC5WSkQiyW4G34GjVr4wtq2jmlbmbRsjo+ZpY3W21Ld1Xx8LJTH
yqVPzkXto4Ny9XJSo/H/YiLaNmXj/K5cGkO4PG5kEhwL/wMGjZ/xrmwqKn1tIRpvlqh4t544w1s3boV9vb
2OH/+PC5evAhXV1f89ttv6Nix07ZjfGWkMgE3bmWhc6faSuUBnWohN68EEffKX5YYn1iEhKRCBPgo1+nc
qRZi4wuQlFIMmUyO8Z80QtBAF6VtfDvYwsRYgms3s1AqB0YMrOfPRij/cXVraIG6jqa4Hp6lnUYSaYGBOT
HqubVDVNgxpWG4iLBJMDa1RN36rcrVyU5PQMj/zUDkteNK5TG3L0BiYAhhb/qQy0txYPN3CD2zU2mb2
38dhkgsQb3GbSunQdWYgaExXBq3Q9S140rnlrsaNm5cFV9Lg5unoGo/5yLfyKeOhelpTj067e4dlb5XESE
HoJILIFL43aV0yCqUjReJ6FNmzaKO0C+TjbteoTFs1th9pRmOPhnelq4W2Fwf2es2nQfxcVymJIKUN/FDPG
JRch6/Ot+446HmP6VO3JyZTh/JR2+HWoh0M8O3/OUAaAs+diyOxajhroil0uGy6HpaOBqjhGDXXH2chqu
PU4ANmx7iBlfu2PG+CY4cioFDnbGGDXEFdH383D4ZJKu3hliifx7jcXmnz/C7pVfvcPvXcRGX8fFo+vR7d0J
MDQ2RXFhHlITolHTZgXmIjZwadWWDZp1wuFtc1BcmAcBOfxcvXEaf53choB3voCpuTVMza3h4dMfF49s
gKGhCZwaeuDRvTCcP7Qa7bsOha0Db0Wvim/Psdi66CPsWf0lWvu8i7iY67h0bD269n/GuWjUFvWbdsL
RHbNRXJSHmrVdEB1+CqGntsK/z7/norVPf1w6uh4GhsZwauji2HthuHB4Fby66N+5EPS0J0EkqJqNVwEn
TpzA3bt3UVpaqiiTSqW4efMmNm7c+FJB+fY+81L1X5Z/R1uMGOIKFyczpKUXY8/BBOzYW7Yss2cLayyd7
4G5i6Nw+MS/yy6/08MR7/dzgl0tEyQkFWLL7kc4eipF8bpIVLZN/551UdfBBNm5JTh+Ohnrtz9UWqCpq2
9tDONvjHrOZigqKsXZy2lYtek+cvPKz4d4FaYeUb1aW3Vj498e3id+xaXAOgq9LHP2qShdh6Ak8tpxnN63F
OIJ92FZwx5eXYegU/cRAIAHUvewKfgDvPPRPHj4lI0dVVyYhzP7lyPy2jHkZqXAXs4VHd/8AG38/r1SqkQm
xcUj6xF+aR+y0hNgZeOANn4D4dNjZJWaTV8qr1pj1FHxjuPs/iVITy47F0+WZQaAB3euYmVc4ej94Xy09nl
8LorycC5kOSLDjilvu+xctO/2ATz9Bir2WSKT4tLRdbb5Er+y0XNgVdMBnn4D4d19VJU6F0GvYJpK3pUQre

zHokNvreznVdEoSvI4cCHWrvVuHwRvQIT09Hfb29khLS0NpaSl69uyJhQsXvIRQuk4S6F+vS5LwuqhSYI+q
2pJgj5jklB5NEoFQ0JCMG3aNJw/fx52dnbYtm0bZp8/jzZt2sDZ2Vn9DoiliKoRQSTWYqO60Sji9PR0dO3aF
QDQpEkThleHo0aNGhg/fjwOHTqk1QCJilH0TiTSzQa0aWJiopWVVFQoKyI7lc3FxUSygVKdOHSQnJz+vKhE
RUfVTDXsBtEGjVnfo0AELfY5EcnlyWrdujSNHjiAJlwNHjx6FjQ2vYyYilnodaJQkTJo0CSkpKTh8+DC6d+8OI
yMj+Pj4YMGCBfjggw+0HSMREZFOCSKRVh7VjUbDDXXq1MHevXtRXFwMlyMjbN26FefPn0fNmjVx7Ng
xbcdIRESkWxxueL7i4mLMmjULHTp0gK+vL4KDg2FoaAgAMDU1hampKaZMmYItW7ZUWrBERET6Si6XY
8mSJfDz84OHhwdGjx6N2NjYZ24vk8nw888/K7YfNmwyIIMjX+iYFU4SFixYgF27diEwMBDdunXD9u3bsX
r1asjlcsyaNQujR4+GgYEBNm3a9EIBEBERVXUCRFp5vIwVK1Zg27ZtmD17Nnbs2AG5XI5Ro0ZBKpWq3H
7mzJnYs2cP5s2bh99//x02NjYYPXo0cnPL32LgWS083HDy5EIMnz4dgwcPBgAEBARg7ty5SExMxO7duzFi
xAh8+eWXMDlyqvDBiYilqgNdr3EglUqxYcMGtJw4EEBAQCARYsWwc/PD8eOHUOvXr2Uto+NjcXvv/+
OVatWwc/PDwAwZ84c9O3bF7du3YK3t3eFjlvhJCETLQ2+vr6K535+foiPj8fx48exceNGdOhQ/paiRERE9P
KioqKQn5+v9OVuZWwFZs2a4a+//iqXJfY4cAGWlpbw9/dX2v7kyZMvdNwKp0YymQxmZmaK5xKJBMb
Gxpg+fToTBclier2JxNp5aCgpgewmf46OjkrldnZ2iteedv/+fTg7O+PYsWPo378/fHx8MHR0aMTExLzQcT
W+C+QTrVqVvW0pERHR60Rbly8GBgY+9/UTJ06oLC8sLASackP6xsbGyM7OLrd9XI4eHj58iBurVmDy5M
mwsrLCypUrMWTIEBw6dAi2trYViveF0hqRijDJVRkRERFpj4mJCQCUM6RYXFwMU1PTctsbGBggLy8PixYt
gq+vL1q1aoVFixYBAP74448KH/eFehlMzJkDY2NjxOZTlbg4GCYm5srbTd//vwX2S0REVGvpq2Ji8/qKVD
nyTBDskoXfXcFOUpKSlo0qRJue0dHBxgYGCAhg0bKspMTEzg7OyMuLi4Ch+3wkmCl5cXUINTlco8PT2R
mZmJzMzMCh+Qilio2tFxr7m7uzssLCxw5coVRZKQk5ODilgIDBs2rNz2XI5eKCKpwc2bN9GyZUsAQFFRE
WJjY9GzZ88KH7fCScKvV/5a4Z0SERG9TnR9CaSRkRGGRuGhQsXwsbGBnXr1kVwcDAchBzW5ptvorS0F
BkZGbC0tISjiQnatWuHTp06YcqUKZg1axZq1KiBJUuWQCKR4J133qnwcfVznUkilqJqZty4cRgwYABmzJiB
wYMHQyKRYp369TAONERiyiJ8fX1x6NAhxfZLly5F+/bt8fnnn2PAgAHly8vD5s2bX+hGjCJBEITKaMzL8O19
Rtch0GNTj4zRdQj0IOxTUboOgR4rIXPSdlUR5K9+m5eVduuSVvZTq0XFFjGqKI76EkqilqLXna6HG3RFP1tN
REREearEngYiISB09XROISQIREZegp52vOtnq4mliEgt9iQqERGpoa17N1Q3TBKliiU4NUNRERERE9hTwIR
EZEaAjJCQERERCro63ADkwQilil19HXion6mRkRERKQWexKliiU4JwEliliUklf5yToZ6uJilhlFyKEBERqcHhB
ililKJww1ERERET2FPAHERkRocbiAiliKVONxARERE9BT2JBAREanB4QYiFbJPREk6BHqKdRd3XYdAj22ffEr
XldBjQf51Kv0Y+nrvBiYJREERagiCfiYJnJNAREREKrEngYiISA1BT39TM0kgliJSQ18nLupnakRERERqsSeBilhl
DX3tSWCSQEREpla+JgkcbiAiliKV2JNARESkBnsSXsCBAweQnZ2t7VililiqJEEQaeVR3WiUJMyaNQupqanaj
oWiliqEI2SBFDxV9y9e1fbsRAREVVJAKraeVQ3Gs1JcHd3x8SJE7Fu3Tq4urrC2NhY6fX58+drJTgilqKqoDp
+wWuDRknC/fv30bZtWwDgsAMREb32mCS8gF9//VXbcRAREVEVo/ElkEVFRThy5Aj++ecfjBgxAnfv3kXjx
o1Rs2ZNbcZHRESkc9XxygRt0ChJSEtLw3vvvYf09HRIpVIMHDgQGzZswK1bt7Bp0yY0bNhQ23ESERhpjFx
PhxsOurrhxx9/ROPGjXHP0iXfPMWffvJRs3RnBwsFYDJClit3QKEm4fPkyxo0bB1NTU0WZtbU1pkyZgm
vXrmktOClioqqAlOC+gPz8fJiZmal8raSk5KUCililiqmr0dU6CRj0JXI5e2L59u1KZTCbDypUr0aZNG60ERkRE
RLqIUU/CICITMHToUFy9ehUymQwzZ87EP//8g9zcXGzZskXbMRIREelUdRwq0AaNkoSGDRti//792LZtG+
zs7CCXy/HWW29hyJAhcHJy0naMREREOqWvwW0ar5NgZ2eHr776ClIZWZBIJLC0tNRmXERERKRjGicJ69
atw+bNmXXMLjs5OWH06NEYNGiQ1oIjliKqCjjc8ALWrFmDFStWICgoCJ6enpDL5QGLC8O8efMAGlkCER
G9Vjjc8AK2bt2KmTNnom/fvoqybt26oWHDhlizZg2TBclieq3ldR2Ajmh0CWR2djZat25drtzLywvJyckvHR
QRErHpnkZJQmBgoMo7QYaEhKBr164vHRQREVFVlggirTyqG42GG2xtbbF9+3aEhYWhffv2MDAwwK1b
txAaGorAwEBMnTpVse38+fO1FiwREZEucOLiC4iMjISHhwcAlCoqSIHerl07ZGdnls7WYvBERERke5oICSo
GmogliJ6XVXHoQJt0HidhJKSEqSnp6O0tBQAIAGCpFlpbt68i59+mgtQCilil3jcMMLOH/+PKZMmYKMjlx
yr5mYmDBJClieg1odHXD//73PzRr1gyrV6+GiYkJli1bhmnTpsHCwgLBwcHajpGiiEin5IJ2HtWNRj0J0dHR
mDdvHtZd3dG0aVOYmZkhKCglZmZmWL9+Pbp166btOlmiHRGX4cbNOpJePqGTVxq1cPdu3cBAB07dk
RMTIz2oiMiliKd0ShJaNy4MU6ePAKAaNCgAcLCwgAASUIJ2ouMilioiuBiSi9gzJgxGDduHAWNDdGrVy8sX
boUY8aMwZ07d9CxY0dtx/jKeXnWxJggV9R3MUDGhR/HEzA9j/inlunm39tfPBePdSxN0FiShG27I7FkZP
KS1Tv2dgRdrWMy9XtOfQCSnNKcD6k8zP3fy08C+Om39CsQa+ZmFvncfKPxUhJilaFIS28ugyBd/cREIUfw
BLZMU4s385bl4+gPy8DDg4NUHndz5HoxZ+StvM/6wt5KUISnUNjc0wbcW1Sm2PvjGpaw//vw8g9N3Pk
HH2qq7DeW20aGSMQW9Yoq6dAbLz5PjzSj4Onc+vUN16jgb4YWxtTPxfCtKySpVec6xlgME9rNC0vhFK5
UDUg2JsPZSD1MzSZ+zt9SRUw/kE2qBRktCtWzF89ttvkEgkCHROxLp167Bx40YEBGzi3Lhx2o7xlWrexBILv
m2BE+dTsW7LA7RqZo2xHzaARCLClT2xKut07IQL301oit9C4nEILAN+HWthxnh3yGRynDhXdittaysD2NUy

xvINMQiPUF5sKi+v7lvp44nlv4z8vWtj6LvO2Hs4QcstrZ7iYv7GtiVj0cLrLXTp+yUe3QvD8d0LIZeXwvftMSr
r7P+/Gbh74xQC+38NWwdX3LiwF9t++QQfTNqEem7tAAAp8XchLy1Bv9HBsKnrKgrEkteSbv0hYmTA9of
XA/DGla6DuW10tDZEBODbHD5ZiF2/5kLt3pGeL+7FSRiEULO5j23rpOdASYOt4WBpHySbWMtxncf10Jia
gmW78qEkaEIA7tZ4ZuPbPHNkhTISiTs8DUI19M5CRqvk9C8eXMAQFZWfPo2bYqVK1dqLShdGjHEff+y
cOc/5WtJHnlWiYMJCIEDXTBrv3xkErL3wvs46D6OHUhFuVxlc3HuHo9E1aWBhg1zFWRJDSbwEAOHm
pDQIJRSqPfftOrtJzu1rG6NPdAb8fiMfJ86laa2N1dnrfUji6NEW/0QsAA1a+qG0tATnDq5Gh27DYWhkorR
9Vlocbl4OwVtDv4VX1yEAgPruHfEo+hpCT21TJAlJ6lglhigWdvuMDA0erWN0gciEZYc+qLpT1Ogp39rK9
W7gZ24kCjDqt1ZAIDwe8WQsIA+nS1w5GKeyi9ziQR4s6M53u1m+cwv+/5dLVFYJMePG9MhIZX9IE7NL
MXXw2zQoK4R7jyUVIKLqKRaE4CAKxbt7+/v7w9vZG+/bt8cYbb2DXrl3ajO2VMzQQwbNIDZy9nKZUf
upiGszNDNCqmXW5Og52xnBxMsPZS8p1Ti9hXMdMzg5mgIAGjewQH5ByTMTBFU+H9kAxcVyrN58X4
PWvH5KZF8uHmV7m2Ur55p1q47pEX5eHQvrFwdC2s7jP72N7Tq+O/aHSKxGGKJBCWyf//AJcVGopZDf
SYllcSqVRO0WP4D4rbsxd8ftTz1OK8VAwnQtL4xwiKU/7b8daslpiZiNKIXfogTADzcTNC/qyX2n8nDzqM5
Krfxam6KM2EFigQBAO7Hy/DFT8l6lyBwTsILWLNmDVasWIGgoCB4enpCLpcjLCwM8+bNAwAMGjRIqOG
+KnUcTGfKKMaj+EKl8viEsucudU0R+nem0muuzuYAgNgE5TpxiWUfWBcnU8QlFqJrFqVqk5JZgztRmaNe6
JsRiES6FpmPJ2hikZ5b/sDVvYomuvnaYuzgKBYX6Nfb3LJmpsSgtkchW3lWp3MbOBQCQnnQfDZv7KL1m
YGiEOq4tAQCCXI6crGRcOroRmSmxeGvIDMV2SY+ilBYb4NefRyA2+jokBkZo5tUdbw6cDGNTi8ptmB4ofJ
SI0+5voCg+GTb+7XUdzmvFzsYAhgYiJKYpdwckpZc9d6wtwS0VF539Ey/FVwuTkV8owM/TtNzrtWtKYG4
qRlpWKT7obQ3vVqYwMhThZnQRNu3PRkZO+v7V1xnnJlyArVu3YubMmejbt6+irFu3bmjYsCHWRfITbZ
MEC/Oy8eeCAuUPW0Fh2XNzs/Jvl7lZWZ18NXUa7BAbVs7D+ah1374uHqblaRQ12xbH5rfPRlGqKIT9
wQ/o7lyG5EMdOKU9+1GfFhWDXDMf/90jY2KUvUioeP/Z6/vBanNyzCADQxn8GgJTrBKBSfHkuDuAIM
DTfwD8e41F/IObOLN/OdISYvDh5F8hEmvc6UYAZJnZkGXym+VwdSk7Ndp4X/+hhRjY77VTI1V/9/NVP
Mlb2leVu/97laliZNI2c5MWJuLMehNK0wbWQvTl6WiWkan35x6RKMklTs7G61bty5X7uXlhdmzZ790UL
ryrNnxTwgqUkmx+Pl15i+X2Ppp6V2UygVE3Sv7oguPyMb9R/lyucATPbraY+/hREWd2rZG8O1QC8vWx6
BUv5L15xKE578ZltHzv8ibtO4ClOZt8Cg6DGf2rOCJtLhsboMgYPAXK2BmaQO7uo0BAPWaeMHCujb+WD
sJ0bfPo3FLf621g0ib1PwJ0vgX8JOJnI5cvyyLV0xn6SMEvzwSW108jDfqb8KNNt5NVQVFIOsy+VYtmwZf
vvtN+Tm5sLLywwffcdnJ2d1dbdv38/Jk2ahBMnTsDJyanCx9To51FgYKDKOOGGhISga9eumuyySnjSG2Bm
qjy3exxb0BefvnZPU/KzEyV86OnPQj5BWVDBbfv5CgShCduRuYgN68Ejeor/zLu3Kk2BAB/nkvRsCWvJ2P
TsgW8iouUL+sqLsxTev1Z7JzcUK+JF/x6fgK/nh8j/PJ+ZKcnQCQWw9W9gyJBeMktVdklqcmxUap2R1QIFB
Sp7jEwNRY9f1z2XxpPejfd7xYpJRoxsTLkF8pRz9FQo/1WV1VhWeYVK1Zg27ZtmD17Nnbs2AG5XI5Ro0ZB
Kn3+/JD4+HjMmjVLo2Nq1JNGa2uL7du3lywsDO3bt4eBgQFu3bqF0NBQBAYGYurUqYpt58+fr1FguhCfW
liSUGF1HZXH555MPnwYWz5rfhRf8Hgbe9z7J69cnQex+TA3kyCgU21E3M3B/Uf/7kMkAgwNRcjKlnts5O
XDW7cykJmInK5vrOxc4FILEFGyiOl8ifPazs2KfCnKy0e/0ReQquOvWFg+O8ELsd6zQAAuVkpEIsuBt+Bo1
a+MLato5iG5m0bF6JmaWN1ttCpC0pGSUoLRVgb6P848betuzPe0KqZtcpJmeUQi4XYGBQ/he0RAzIONT
wSkmlUmzYsAETJ05EEAAAGDRokXw8/PDsWPH0KtXL5X15HI5Jk2ahObNm+Py5csvgFyNehliPh4eEB
KysrREVF4datWwCAdu3aItS7G3FxcYpHdSKVCbXkXwudO9VWkg/oVAu5eSWI+E9PAADEJxYhlaKQAT7K
dTp3qoXY+AlkpRRDJpNj/CeNEDTQRWkb3w62MDGW4NrNLKXypo2tcDNS9WxjfWZgalx6bu0QFXZMa
egnluwYjE0tUbd+q3J1stMTEPJ/MxB57bhSecztC5AYGMLWoT7k8llc2PwDqs/sVNrm9l+HIRJLUK9x28pp
EJEWyEqAqAdStGuu/OPGq7kJ8gvlInT7MdGsVTAnQdStGtmAoOn8o/mDYxgYizm1Q2v+OqGqKgo5Of
nw9vbW1FmZWwFZs2a4a+/npmvVWrVKEmk+Hjjz/W6Lga9SSoGmp4XWza9QilZ7fC7CnNcPDPJLRwt
8Lg/s5Ytek+iovlMDOVoL6LGeITi5CVU/bh27jlaZ/5Y6cXBnOX0mHb4daCPSzw3c/RQAoSz627I7FqKGuy
MiS4XJoOhq4mmPEYFecvZyGa+FZiuPb1zaGpYUBHsRWbKU0fePfayw2//wRdq/8Ch5+7yl2+jouHl2Pbu
9OgKGxKYol85CaEI2adi4wt7SBS+O2aNCsEw5vm4PiwjzY2LNg7o3T+OvkNgS88wVMza1ham4ND5/+u
HhkAwwNTEdu0AOP7oXh/KHVaN91KGwd6uu62UTPte90Lr75yBZfvF8TZ64VwM3FCD19LbDzWC6kM
gGmxILUsTNASnopcgSqPvyw81gOpo+qhUkf2OLg+TxYm4vxfg8rRD+Sliyy4pdzvw60dXVDYGDgc18/ceK
EyvIntz1wdHRUKrezs3vmLRHCw8OxYcMG7N69G8nJmk2C13gxpYSEBFhZWcHCwgKXL1/GsWPH0KZN
m2d2eVQX18KzMGP+bYwY4op505sjLb0YKzb+gx17y3pFmjS0wNL5Hpi7OAqHT5S96YdPJMPIUIz3+znh
7W6OSEgqxOz/RSotgLRp50NkZUvRv2dd9HvLEdm5Jdh3OAHRtz9UOr5NjbLr9HPz9GgpxdQv2IHDPpOC
U7vW4qdyz6DZQ17vDFwEjp1HwEASHx4G5uCP8A7H82Dh29/iMRiDPp0Cc7sX44Lh9ciNysFNnau6PXB

LLTxG6DYb8+gmahZ2xnhl/bh7IGVsLjxQMA74+DTY6SumkpUYRH/SLFkeyb6B1pi/FAbZOaUYvuRHBy+U
PZjw7WOLaaPqoXVuzNx7nqhmr39KzpWhnnr0zDwDSt8ObgmpDIBYZFF2HY4R28vCdSVwsKy82ZkpLy
Wi7GxMbKzy185VFBQgIkTJ2LixlIwdXXVOEkQCaqm7Ktx/PhxjB8/HqtXr4azszPefvttODs7lzExEZMMtCL
QoUM1CuYJ395Nxo+ac+nUzirvyqx7uKu6xDose2TT+k6BHpsy9w66jd6SQuaeeHW682mv02P3r0KM
aNG4cbN27AxOTfIWW//PJLSKXScqseT5s2Denp6Vi9eJUA4MqVKxg+fPirubphxYoVGdlyJLy9vRESEoI6de
rg4MGDMddvHrZs2aLJLomliKosQdDOQ1NPhhISUpSvektJSYG9vX257X///XdcvHgRnp6e8PT0xOjRowE
AvXr1wqpVqyp8XI1SmpiYGCxbtgxisRgXLlxA586dIRaL4eHhgFj4eE12SUREVGXpekIld3d3WFhY4MqVK3
BxKZsEn5OTg4iICAwbNqzc9seOHVN6fuPGDUyaNAlr1qyBm5tbhY+rUZJgZWwF3Nxc5Obmljw8XJGhP
Hr0CDVq1NBkl0RERPQMRkZGGDZsGBYuXAgbGxvUrVsXwcHBChBwwJtvvonS0IjKZGTA0tISjYmqFevnLL
9J5Mb69Sp80Lf0xolCZ07d8Z3330Hc3NzWfPawfHBxcvXsTMmTMV128SERG9LI52ISRTGDduHEpKsBj
xgwUFRXBy8sL69evh6GhLeLi4hAYGij58+ejf//+WjumRknCt99+i8WLFyM2NhYrV66EkZERwsLC4OHhgSI
TpmgtOClioqqgKlZNIzFIMGnSJEyaNKnca05OTrhZ584z63bo0OG5rz+LRklCREQEvvnmG6Wyl774QpNdE
RERURWIUZIQFBSEgJVqICAgAN26dUOnTp1gbKz6nuVERETVXVW4wZMuaJQkXLp0CefOncOZM2cwbD
o0FBuVoVOnTggMDERAQABsbLjWPRERvT6qwpwExdD46oaePXuiZ8+eEAQBN27cwM6dO/Htt99CJBIp
7uVARERE1ZfGyzJnZGTg6tWruHz5Mq5cuYL79+/DyckJnTp10mZ8REREolcVji7qgkZJQu/evREdHQ17e3
u0bdsWIOaMgLe39wst9UHERFRd6GuSoNGyzBKJBCKRCLVq1ULdunXh5OQEOzs7bcdGREREOqRRT8Lev
XuRkZGBS5cu4cKFC5g2bRoyMjLg4eEBb29vfPLJ9qOk4iISGfKOl6WWVc0npNgY2OjmLz4zz//YPv27di5c
yeuXr3KJIGliF4r+jrcFGSKJWVpehFuHjXlpKSkTciRQuMHTsWXbp00XaMREREOsUk4QV4e3vDxMQEHTt
2xNixYxEQEIDatWtrOzYiliLSIY2ShBUrVnCVRSli0hv6upiSRlc3dOnSBffv38fUqVPx/vvvIzk5GVu3bsWVK1
e0HR8REZHOCYJIK4/qRqMk4datWxg4cCDi4uJw69YtSKVSREZGYuTIkThz5oy2YyQilid0ChJCA4OxogRI/
Drr7/C0NAQADBnzhwMHToU55cu1WqAREREuiYI2nlUNxolCbvd30bfv3LIQ8dOhQxMTEvGxMREVGVI
he086huNEoSDA0NkZeXV648MTERpqamLx0UERER6Z5GSUK3bt2wePFi5OTkKMpiYmlwd+5cBAQEaCs
2liKiKoHDDS9gypQpyM/PR8eOHVFYWIj+/fujZ8+ekEgkmDx5srZjClic0il9TRI0WifBwslCO3bswKVLLxARE
QG5XA43Nzf4+/tDJkp+I3gQERFRReVoeOYPH/7c18+dO4f169dDJBh06ZNLx0YERFRVVEJx1qQ4WThL
p16z739dDQUMTGxsLKyulqylilqKquNQgTZUOEmYP3++yvK8vDz8+OOPil2NhY+PD+bOnau14ililKoC
uVzXEeiGxreKBoCLFy9ixowZyM3NxeZsZfW4EBtxUVEREQ6plGSUFBQgB9//BG7du2Cj48P5syZA0dHR2
3HRkREVCVwuKGCLi26hOnTpyM7OxuzZs3CoEGDKiMuliKiKoNjghoFBQVYsGABdu7cCW9vb8ydO5e9B
0RERK+xCicJvXv3RkJCApydndGmTRv8/vvvz9z2888/10pwREREVQEvgVRDEAQ4OjqipKQEe/bseeZ2lpGI
SQIREb1WBK2NN1SvBQcrnCSPhmyMuMgliKiKualLoEkliLSB5y4SERERCrp62JKgt0FkoiliF5/7EkgliJsg8
MNREREpBlvgaxC1pnwJlFvXV/yzroOgZ6yfflpXYdAjw1e0EXXIdAtc+9U+iH0tSeBcxKliihlpSrZk0BERFSVC
Fobb3hNF1MiliLSV/o6J4HDDURERKQSexKliiJyU0NeJi0wSili1JDr6XgDhxulihlJfykEBERqcHhBililIJX5ME
DjcQERGRSuxJICliUkOup10JTBKliiJUEOS6jka3mCQQERGplehpTwLnJBAREZFK7EkgliJSQ87hBililIKFww
1ERERET2FPAHERkRp6eusGjLERETqChqaJXC4gYiliFRiTwIREZEaejpvkUkCERGRONIONxARERH9iz0JRRER
EaujrOglMEoiliNTgDZ6liihIJX29VTTnJBAREZFK7EkgliJSg3MSiliISCVeAvmCrI27hoyMDADA3r178fHHH2
P16tV6m20RERG9bjRKENbs2IGhQ4fizp07ilqKwtSpUyGtyfB///d/WL58ubZjClic0ilBOM7jZjlcixZsgr+fn7
w8PDA6NGJERsb+8zt7927hzFjxqBDhw7w9vbGuHHjkJCQ8ELH1ChJ2LRpE2bMmAFvb28cOnQlJR3soY
NG7BgwQLs2bNHk10SERFVWYJc0MrjZaxYsQLbtm3D7NmzsWPHDsJlcowaNqpSqbTctpmZmfjoo49gY
mKCX3/9FWvXrkVGRgZGjRqF4uLiCh9ToyQhLi4OXbt2BQBcuHAB/v7+AICGDRsiLS1Nk10SERHRM0ilUm
zYsAHjxo1DQEEA3N3dsWjRliQJHeHYsWPltv/zzz9RUFCAbQsWwM3NDS1atEBwCDBiYmJw7dq1Ch9Xoy
TB1tYWKSkpSE1NRWRkJHx8fAAAUVFRqFWrlia7JClirLkgqCVh6aioqKQn58Pb29vRZmVIRWaNWuGv/
76q9z23t7eWLFiBUxMTBRIYnHZV35OTk6Fj6vR1Q09e/bExIkTYWpqCgCHB7Rv3x6HDh3C7NmzMWDA
AE12SUREVGW97FDBE4GBgc99/cSJeyrLk5KSAACoj5K5XZ2dorXnubk5AQnJyelsjVr1sDExAReXl4VjlejJ
GHChAlwcHBAbGwshg4dColEgvT0dLz//vv44osvNNklERFRlaWtJEFTHyWFAAAjlyOlcmNjY2RnZ6ut/+uv
v2LLli2YMWMMGbGxsKnxcjZIEsViMoKAgpbL/PiciliJlz+opUOfJsfUKlUaQiguLoapqekz6wmCgF9++QUrV
67E2LFjX/i7WuN1Es6cOYPHw4fD19cX8fHxWLP0Kfbt26fp7oiliKosuaCdh6aeDDOkpKQolaekpMDe3l5l
HZIMhkmTJmHVqLWYOnUqvvrqqxc+rkY9CRcuXMDnn3+Onj174u+//4ZcLkdJSQmmTp0KQRDQt29fTXZ
brZi1aovagz+EsXM9lGRnlevlfmSE7H7m9iIDQ9QaFAQrv0BIRKwgjXuE9H2/Iffi6VcX9Gsi5vZ5nP5jEVITo2
FuaYt2XYai45sjJBKJVG5flivG2ZDLuHUIBAV5GbB3cod/78/RslWf0jYlvmgDeWmJUI1DYzNMWXA9UttNbn

VoZlxBb1iirp0BsvPk+PNKPg6dz69Q3XqOBvhhbG1M/F8K0rJKIV5zrGWAwT2s0LS+EUrIQNSDYmw9IIPU
zNJn7I00ZVLXhV5/H0Dou58h4+xVXYdTZel6uMHD3R0WFha4cuUKXFcAJRNQilyliMCwYcNU1pk8eTKO
Hz+On3/+GT179tTouBoICUuXLsWECRPw4Ycf4ujRowCA8ePHw8LCAuvXr3/tkwSTxu5wnjoLORfPIG3nJp
i6t0DtYaMAiQQZe3eqrFNn/DRYtOmAjJDdyL95HSYNGsNx7NcwsLJG5hH2wFRUXMzf2Ln0EzTzegsBfb/
Eo3thOPF7MOTyUvi8NUZlnQObpuNe+Cl06fc1bOzrl/zSH9ix9GMETdgMF7d2AICU+LuQl5bgnZHBqFnb
RVH3yWxgKq+hsyEmBtng8s1C7P4zf271jPB+dytlxCKEnM17bl0nOwNMHG4LA0n5xM7GWozvPq6FxFN
QSLN+VCSNDEQZ2s8I3H9nimyUpkJWo2CFpxMTJAe0ProdhDStdh0JqGBkZYdiwYVi4cCFsbGxQt25dBAC
Hw8HBAW+++SZKS0uRkZEB50tLmJiYYM+ePth06BAmt56M9u3blzU1VbGvJ9tUhEZJwp07d7BgwYJy5T
169MCyZcs02WW1UmvQcBTdj0Hi0rL3IP/vUlGkEtj2ex+Zh/6A8J+FLYxdG8KyvQ9St29E+p7tAICcm9chLy
6C3dCRyD77J+QFFfv1pe/O7l8KB5em6DsyGADQsIU/5KULuHBoFdoHDoehkfJ//Ky00Ny6EoleQ75Duy5
DAQD13TsilvoaQk9vUyQJybFREEsM0LrtDxgYKk8MltXeDbTEg0QZVu3OAgCE3yuGRAL06WyBlxfzVH6
ZSyTAmx3N8W43y2d+2ffvaonCijl+3JgOqazs11tqZim+HmaDBnWNCodh+YVj6AWJRHAK6oumP00BVHF
A0X9UhVsOjBs3DiUIJZgxYwaKiorg5eWF9evXw9DQEHFxcQgMDMT8+fPRv39/HDhwAACwYMGcCt/XT
7apCI2SBetL56SklP6Jljo6GtbW1JrusNkQGhJBr3gppu35VKs+9fA62fd+DqXsLFIQrL1Rh7FT2PuWFXl
YqL7h1A2ITU5g1b428vy5WbuCvgRKZFA/vXoF/n3FK5U3bdselo+sQGx2GBs18lF6zsLbDiOm7YWPnqigT
icUQiW1QKvt31bHk2EjYojRggIBBBhKgaX1j7DmRq1T+160i9Pa3RJN6xrgVU35VNw83E/Tvaon9Z/KQkyf
HqH41ym3j1dwUh87nKRIEALglf8MXPYvrvR36yqpVE7RY/gMertqGtBMX0T5kra5DqvKqwg2eJBIIJk2a
hEmTjPv7zcnJCxfu3FE837Bhg1aOqVGS0lt3b8ybNw/z5s2DSCRCfn4+zp49i9mzZ+Ptt9/WSmBVlaG9A8
SGRpAmxcmVS5PK1sM2quNULkkoebxwhWFtexQ/uq8oN3JwflxP5eteSbWstFiUlshga++qVF7Trh4AID
3pfrkkwcDQCHVcWwIABlkOVnJuHJsAzJTH6H74BmK7ZJilyEWS7B10QjERV+DxMAITdv1QLeBk2FsYIG
5DauG7GwMYGggQmKacndAUnrZc8faEtyKKV/vn3gpvlqYjPxCAX6e5Wdk164pgbmgGIZpfigtzW8W5
nCyFCEm9FF2LQ/Gxk58kppj74pfJSl0+5voCg+GTb+7XUdDIVhGiUJX331FZKSkhRzD/r16wdBEBAQEIDx4
8drM74qR2xmDgCQFyYotI95LjE1K1enIOIGpEkJsB/xKeTFRSiKuQvjeg1Qe+goCHI5xMYVGxvSd0UFZb9a
jf7zpW1sUnZOigufPw5+8chanPrjfwAAT79BqN+sE4CybsSUuDuAIMDTbyB8e45F4oObObuyDGkJOrg+a
QtEnJugxNSkrl+6sfJ5S7tIWvZry9RY9fuVqeZL3tK8rN773a0QEYfFsp2ZsDYXY9CbVpg2shamL0tFsUz3v+i
qO1lmNmSZ6q+tp39VheEGXdAoSTA0NMTPP/+McePGITlyEnK5HG5ubmjUqJG246tyRKLnf1mo/I9UUo
LYudPgOHYCXl4vGxuSZaQjZeMK1Bk/HUJxUWWE+toRhOd/waj7Im/cugucGrVB7L0wnDuwHDJZUdnc
BkHAoM9XwtzCBxrNgYA1HPzgrlVLeXbPwxt8+hUcvOWmvH60CsZhxbo7+nTyYyZufJ8cu2TMV+kjJK8
MMntdHJwxSn/ip4zh6IKoeur27QFY2ShCfq1auHevXqaSuWaqH08QRD8X96DBQ9DM+YgChLsScj7ydA
YIUDEktLSBPjYVJLDiKxGKV5uSrrkDITU0sAgLRI+T0uLsp7/PrzhwXs6roBKEsA5PISnN2/FF36joe1bR24Nul
QbvvGrQIAAMlxd5gk/EdBkeoeA1Nj0ePXNRsWKHrcMxF+t0gp0YiJISG/UI56joYa7ZeINPhJMhd3f2Z16
H/V2RkpMYBVXWY5AQlpaUwcqijVP7kuTTuUbk6liMjWHbwQ+Gd25CIJKE0JwsAYNKg7Fdr0f3oyg36NV
HTzgUisQSZqQ+VyjNSyt5zW8eG5epkpcjfsRfT0zYBwaGxopyR5fmAIDcrBSIJRLCz+Dhs19YW3773mVS
ct6eMwsamq9LdVdSkYJSksF2NtIlMrtbcv+pCSkanadYnJGKeRyAQYG5f/WSMSAJEMNPcPsSVDjySRFFsfI
ZCilvAnLDj7I2P+botyygy9K8/NQGH2nfJ2SEtiP/AxZxw4gddvjGadiMWq+9Q6kSfFKxnp2QwMjeHSuB2i
rh1HxzdHKv4/RoUdhbGpJeq6tipXJzs9AQc3z4ChkSladOilKP8n4glkBoawdagPaVE+Dv36LXze/gRd+v07p
yYi9BBEYglcGrer/MZVM7ISIOqBFO2am+LgU4sneTU3QX6hHDFxMo32WywVcOeBFO2amWDXsRyUPF
47qXkDI5gYi3n5I+nMy9zBsTqrcJJQ0Wsq9UH679vg/O2PqPP1DGSfParTJs1g02cgUreuhYAthtjUDEZOLp
AlJ6IOJxuQy5F5NAQ2PftBlp4KaUlCavboA9MmzRG3YKbmA7h6yLfnWGxd9BH2rP4SrX3eRVzMdVw6th
5d+0+AobEpigvzkJoQjZp2LjC3tIFLo7ao37QTju6YjeKiPNSs7YLo8FMIPbUV/n2+gKm5NUzNrdHapz8uHV
OPA0NjODX0ROy9MFw4vApeXYbC1qG+rptdJe07nYtvPrLFF+/XxJlrBXBzMUJPXwvsPJYLqUyAqbEldewM
kJJeityCig8/7DyWg+mjamHSB7Y4eD4P1uZivN/DCtGPpAiL5PwD0g32JLygEydO4O7duygt/XeZVKUIups3
b2Ljxo1aCa6qKrj1N+/no1ag4JQd/L3KMLlr+qva5F4HcAgEn9RnD5YSESlwcj+/RxAEDars2AIMC273uQ
WFii6EEMyufNQEF4mC6bUu3Ub+qNAZ8sxdn9S/Dbis9gWcMe3QZMRsc3RwAAEH/dxpaFw9H7w/lo7d
MflrEYAz5dinMhy3Hx8BrkZafAxs4VbwfNgqffQMV+3xr6A2rUcsbNy/tw/uBKWNV0QOq+4+DdfZSumlrl
RfwjxZLtmegfalnxQ22QmVOK7UdycPhCWc+Cax1DTB9VC6t3Z+Lc9cIK7zc6VoZ569Mw8A0rfDm4JqQy
AWGRRdh2Oif5NNErJhI0uK5j4cKFWLduHWrvqoX09HTY29sjLS0NpaWl6NmzJxYuXPhSQUUNfPOI6pP2
/PXFmv2HQE85ejRB1yHQY4MXdNF1CPRYT1n5YV5tG/5tolb2s3l29VoXR6OLv0NCQJbt2jScP38ednZ22

LZtG86fP482bdrA2dIZ2zESERHplFwuaOVR3WiUJKSnP6Nr164AgCZNmiA8PBw1atTA+PHjcejQla0GSER
ERLqh0ZwEKysrFBSULWji4uKC6OiyS/jq1KmD5GSur05ERK8XfZ24qFFPQocOHbBw4UlkJyejdevWOHLKc
DlyMnD06FHY2NhoO0YiliKdEgRBK4/qRqMkYfLkyUhJScHhw4fRvXt3GBkZwcfHBwsWLMaHH3yg7RiJil
hIBzQabnB0dMTevXtRXfYmVlW8DB8+HPHx8fD390fLli21HSMREZFOCXL9vApPcyUjy5cvx+bNm7Fr1y7
Uq1cPt2/fxpgxY5Cfnw9BEBAAgoqVK1fCxIR3NSQiotdHdbwyQRsqPNywc+dOrFq1CoMGDYKtrS0AYNq
0aTAxMUFIJAjOnDmD/Px8rFmzptKCJSliolenwknCb7/9hm+++QYTJkyAhYUFbt68iQcPHiAoKAiNGjWCv
b09xo4di4MHD1ZmvERERK+cvk5scrPBwQ0xMDHx8fBTPL1++DJFihM6d/72FbqNGjZCQwBXhiljo9aKvl0
C+0JyEp+8CGRoaCmtra7i7uyvK8vPzYWpqqr3oililqgB9TRIqPNzg5uaGa9euAQBvynJw5coVpZ4FADh8+
DDc3Ny0GyERERHPRIV7EoYOHYrvv/8ekZGRuH79OqRSqWJNhOTkZISEhGD9+vWYO3dupQVLRESK3K
BlOA+V58+fSCVSrF9+3alxWlsWrQlrVq1AgCsXr0au3btwujRo/HOO+9UWrBERES6oK/DDs80J2HAgAEY
MGBAufKPP/4YX3zxBWrwRkm1wliliEi3NFpx8b/s7e21sRsilqlqiT0JREREpFJ1XONAGzS6wRMRER9/ti
QEREplacN3gililiVfR1TgKHG4iliEgl9iQqERGPiXAxJSililJFX4cbmCQqERGPoa9JAuckEBERkUrsSSAilIKDN
3gilililTjcQERERPQU9iQqERGPiXDFRSililKFww1ERERET2FPAhERkRpccZGlihUknO4gYiliOhf7EkglilSg1c
3EBERkUr6enUDkwQilil19HXiluckEBERkUrsSSAilIKDww1ERESkkR5OXORwAxEREakkEgRBP/tQilil6LnYk
0BEREQqMUKgilililZgkEBERkUpMEoiliEglJglERESkEpMEililiUoJAhEREanEJIGililUYpJAREREKJFJICilpWYJ
BAREZFKTBKililHJSYJGvjmm2/QpEmT5z5atGiBzMXmIfX379+Ppk2bliKp6RVHXR0EBQWpPf8DAglwa9YsF
BYWarzvPXv2oEmTJornXbt2xdKIS7URdpXStWtXdO3aFXI5eeVe++abbxAUfKSDqEhb9u/fj0GDBsHDww
Oenp549913sWPHjgrX/+ngOi/DHQdQHU0ffp0TJgwQfHc19cX06ZNw9tvvw0AkMlkCAwMxJEJRzB48O
By9ffu3QtFX184ODi8spirq7feegvTp09XPC8oKMD58+cx/f58yOVyzJw5UyvH2b17N4yNjbWyr6omPj4eC
xYswKxZs3QdCmnR7t27MXfuXEyPh1t27aFIAi4cOEC5syZg7S0NHZ++ee6DpFeA0wSNGBpaQLLS8tyZbV
r11Y89/b2RkhISLkklTk5GZcuXcLixYtfRajVnomJidL7CgD16tXDrVu3cOjQla0ICTY2NlrZT1Xk7OyMnTt3ok
ePHujUqZOUwyEt2bZtG959910MGDBAUdagQQMkJyjd8+bNTBJIKzjcUEkGDBiAa9euIT4+Xql83759qFG
jBrp27aqjyF4PxsBGMdaOy3ETEhlwfvx4eHt7o3nz5vD390dwcDDkcrli++PHj6N3795o2bllhgwZgoSEBKX
9/Xe44fTp0xg0aBA8PT3h6+uL+fPno6io6NU0Tsv69OkDb29vTJ8+XEWwAwDk5ubi22+/RceOHdG2bVs
MHZ4cN2/eBACcPHkS7u7uyMjIUGzft29f9OrVS/E8OzsbzZo1Q2hoKAoLCzF9+nT4+PigZcuW6Nu3L44d
O6bYNigoCHPNzSXXX3+N1q1bw9/fH2vWrIEgClpt/vzzTwwcOBAeHh5o2bll+vfVj3Pnz3QPmJiYjB69GjF
OZwwYQJSU1OV9vHtt99i4MCBaNeuHfbv3/8S7/KrJxaLcf36dWRnZyuVjxkzBjt37gRQsc/G06RSKYKDg+
Hn5wdPT08MGjQI58+fV7xeWlqK4OBgdO7cGS1atECPhj2wffv2ymSk6RyThErSrVs3WfTb48CBA0rl+/bt
Q9++fWFoaKijyKq3kplSnD59Gvv27cM777wDABg7dixyc3OxcENGHDlyBCNGjMC6detw8uRJAMC1a9f
wxRdfoHv37ti/fz/69euHNWvWPPMYx48fx9ixYxEQIEA9e/bghx9+wKFDh/D111+/kjZqm0gkwty5c5Gdn
Y2ffvqp3OuCIGD06NGIjY3F6tWrsWvXLnH4eGDw4MGililHAp06dYGxsjMuXLwMAMjlycOfOHdy7dw/p6
ekAgPPnz8Pa2hpt2rTBL7/8gt37mDNmjU4dOgQ/P39MX78eMTFxSmOuX37dlhaWmLPnj0YP348li9fjr
Vr1wlAbt26hS+++A19e/ZESEglDu3aBRsbG0yePBISqbRC+0hOTsaQIUNQR1497N69G6tWrUJeXh7ee+89
FBQUKpbx22+/Yfjw4di2bRv8/Py0/+ZXoLgJriEilg+/v4YM2YM1qxZg/DwcFhaWqj+/foA1H82/mvq1Km
4cOECFi5ciD/++ANvvfUWPvnkE5w+fRpAWe/FkSNHsGjRIhw9ehTDhg3DzJkzERoa+qqaTa+aQC/Nzc1N
+P3338uVz549W+jZs6fieXh4uODm5iZER0e/yvCqrWHDhgnNmjUTPDw8FA93d3eha9euwtKISwWZTCY
UFhYK69evFxiSEpTqdurUSVi2bJkgCilwfvx4YfDgwUqvz5kzR3Bzc1M879Kli7BkyRJBearHwIABwhdffKG0
/fHjxwU3NzfH3r17ldHUSvN0u3bs2CG4ubkI586dEwRBEKZMmSIMGzZMuHjxotCkSRMhMzNTqe7QoU
OFKVOMCilgCB9//LEwdepUQRAEISQkROjfv7/g5+cnHDx4UBAEQZg4caLwzTffCilgCGPHjhWGDx8uZGd
nC4lgCCUilJcLZs2eFnJwcQRDKzmuvXr0EuVyuOFZwclDg4+MjyOVyISiiQti6datSLGfOnBHc3NwU51ndPh
YtWiT06dNHAR8FBQVCq1atFJ/VYcOGCX379tXkba0yrl+/LowfP15o37694ObmJri5uQlvvmmEBoaWqH
Pxu+//674HDx48EBwc3MTililLafPHmyMGzYMEEQyj43vXr1EpKTkxWvX7hwQUhLS6vMZplOcU5CJXr3
3Xfx66+/lioqCu7u7ti3bx88PT3RsGFDXyDwBXTt2hUTJ06ElAgIdw/H3Llz0alTJ3zyyScwMDCAgYEBhg0b
hiNHjiA8PBwPHz7EnTt3kJaWpuhSvXv3Lnx8fJT26+npic2bN6s85t27d9GzZ0+lsvbt2ytea9SoUSW0tPK99
957OHR0KGbMmKHUw3X79m0lgoAuXboobS+VSIFcXayg7DysWLECAHDhwgV4e3sjPj4ely9fRo8ePXD
3DnMmTMHADB69Gh88skn8Pb2RqtWreDj44PevXsrzePp0KEDRCKR4rmnpyfWrI2LzMXMNG3aFNbW
1lizZg3++ecfPHz4EFFRUQDKursrso+liAjcu3cPnp6eSm0qli5GTEyM4nm9evU0ezOrCA8PD3h4eEAulyM
qKgnpzpZbli1bMhr0aBw/fltZ+NpERERAIahQ4YolctkMlhZWQEAhg4dij///BOdO3dG06ZN4ePjg549e8L

W1rbyG0s6wSShEjVt2hTNmzfH/v370bBhQxw4cEDpqghSz9zcXPGH3NXVFXZ2dvjoo48gkUgwc+ZMFB
QUYNiWYSgqKkKPHj3Qr18/tGrVCkOHDIXsQyQSIfuj+LzhHuGpceOnntR/Mg+iupozZw569+6N+fPnK8rkc
jksLCywZ8+ectsbGRkBAAICAvDdd98hJiYgLy5dwtY5cxEfH4/169fjxo0bKCwsVCRinp6eOHPmDC5culBLly
5h7969WLLyJdatWwdvb28A5d/HJ++vRCLB1atXMXLkSAQEBKbt27bo3bs3CgsL8dlInnynVed4+5HI5Onb
siO+//75cm55OVkxMTCr2xlUxSUIJWL16NT7++GM4ODhALBajWbNmaNasGbp164ZevXrh7Nmz+PXXX
5/72Xjak//3W7duhbm5udJrYnHZyLSrquyOHTuGq1ev4sKFCzh9+jTWrl2L+fPno1+/fpXbaNIJzkmoZO+++
y6OHDmCixcvori4WHGZJGmmY8eO+Oijj7B9+3acPXsW58+fx+3bt7F582aMGzcOb7/9NiwsLJCenq74o
+fu7o7r168r7efWrVvPPEaTJk1w7do1pbInY67VvReoTp06+Oabb7B7925Fm9zc3JCXIweZTIz69eopHmv
XrsWJEycAAHZ2dmjRogW2b9+O9PR0tG3bFt7e3njw4AF27tyJTp06wdTUFACwZMKShIWfITAwEDNmz
MDRo0fh7OyMo0ePKuJ4MinyiWvXrsHJyQnW1tbYsGEDOnTogKVLl+LDDz+Ej48PEhMTASgncM/bR+PG
jRETEwNHR0dFe6ytrTFv3jzcvXtX+2/sK2ZkZITffvtN5WTLJ7/64+Pj1X42nta4cWMAQGpqqtL/gz179igSy
M2bN+PYsWPw8fHB5MmTERISAm9vbxw6dKgSW0u6xCSHkvXu3RtpaWlYsmQJ3n777XIZOr24L7/8Eq6
urpg5cyZq1qwJoGxRmfj4eISGhuLTTz+FTCZTTHlbMWIEoqKi8NNPP+H+/fvYv38/tmzZ8sz9jxo1CseOHc
OKFStw//59nDp1CrNnz0aXLI2qfZIAAAMHDoSvry9IY2MBAH5+fmjatCnGjx+Py5cv4+HDh5g/fz727Nmj
1N6uXbti586d8PDwglmJCZydneHk5IR9+/YhMDBQsV1sbCy+//57XLp0CfHx8Th69CgSEhKUuv5DQ0OxZ
MkSPHjwAlt378bWrVsxtQoAICjoyPu3LmD0NBQxMXF4ffff8cvv/wCAEoTF5+3jyFDhiA3NxcTJ05EVFQ
UoqKiMH78eNy8eRNUbm6V9+a+IjY2Nhg1ahR++eUXLFq0CJGRkYiNjcWpU6fw+eefo0OHDvD39wfw/
M/G0xo3bowuXbrg+++x8mTJxEbG4u1a9di9erVcHfXAVA2aXXWrFk4ceIE4uPjce7cOURGRpYb1qHXR/
XuO60GrKys8MYbb+DAgQOYMWOGrsN5LRgbG2P27NkYPnw4jh49iqITp+L//u//sHjxYtjb2+Ptt9+Go6Oj
4pdm06ZNsXbtWgQHB2PLli1o3LgxPvnxeyxcuFDI/rt3747//e9/WLlyJVasWAEbGxv06tUL48aNe5XNrFR
Phh2Asu75DRs2IDg4GF999RUKCwvRsGFDLFu2TDE8AJQICb/88gs6duyoKOvUqRN2796tNJ/h+++x08/
/YRJkyYhKysLdevWxcSJExVXowBAYGAgYmJi0KdPH9jZ2WHq1KmKNUXGjRuHtLQ0fPLJwCARo0aYd68e
Zg0aRJu3rypSFyetw9nZ2ds2bIFP//8MwYPHgyJRII2bdpg8+bNr82aGF999RVcXV2xa9cubN26FUVFRahT
pw7eeustfPzxxzAzM1P72fivRysWYdGiRfjuu++QnZ0NFxcXzJ07VzGU8Pnnn0Mmk2HOnDlITU1F7dq1M
XjwYHz88cevsun0CokEVf1ORESVJCgoCHXr1sWPP/6o030QkXocbiAiliKVmCQQERGRShuICliipXYk0BER
EQqMUKgIliilZgkEBERkUpMEoiliEgJlIERESkEpMEililiUolJAhEREanEJIGliihUYpJAREREKv0/eVphBuvUvJ
QAAAAASUVORK5CYII=\n",

"text/plain": [

"<Figure size 640x480 with 2 Axes>"

]

},

"metadata": {},

"output_type": "display_data"

}

],

"source": [

"sns.heatmap(data_file.corr(),annot=True,cmap='coolwarm')"

]

},

{

```
"cell_type": "code",
"execution_count": 50,
"id": "1a0a81c0",
"metadata": {},
"outputs": [],
"source": [
    "X=data_file.drop(columns='Sales')"
]
},
{
    "cell_type": "code",
    "execution_count": 51,
    "id": "3228a73d",
    "metadata": {},
    "outputs": [],
    "source": [
        "Y=data_file['Sales']"
    ]
},
{
    "cell_type": "code",
    "execution_count": 52,
    "id": "8f7e8b3f",
    "metadata": {},
    "outputs": [],
    "source": [
        "X_train,X_test,Y_train,Y_test=train_test_split(X,Y,test_size=0.3,random_state=3)"
    ]
},
{
    "cell_type": "code",
```

```
"execution_count": 53,  
"id": "43490bf2",  
"metadata": {},  
"outputs": [],  
"source": [  
    "model=LinearRegression()"
```

```
]
```

```
},
```

```
{  
    "cell_type": "code",  
    "execution_count": 54,  
    "id": "6f5248b3",  
    "metadata": {},  
    "outputs": [  
        {
```

```
            "data": {
```

```
                "text/html": [  
                    "<style>#sk-container-id-3 {color: black;}#sk-container-id-3 pre{padding: 0;}#sk-container-id-3
```

```
div.sk-toggleable {background-color: white;}#sk-container-id-3 label.sk-toggleable__label {cursor:  
pointer;display: block;width: 100%;margin-bottom: 0;padding: 0.3em;box-sizing: border-box;text-  
align: center;}#sk-container-id-3 label.sk-toggleable__label-arrow:before {content: \"▸\";float:  
left;margin-right: 0.25em;color: #696969;}#sk-container-id-3 label.sk-toggleable__label-  
arrow:hover:before {color: black;}#sk-container-id-3 div.sk-estimator:hover label.sk-  
toggleable__label-arrow:before {color: black;}#sk-container-id-3 div.sk-toggleable__content {max-  
height: 0;max-width: 0;overflow: hidden;text-align: left;background-color: #f0f8ff;}#sk-container-id-3  
div.sk-toggleable__content pre {margin: 0.2em;color: black;border-radius: 0.25em;background-color:  
#f0f8ff;}#sk-container-id-3 input.sk-toggleable__control:checked~div.sk-toggleable__content {max-  
height: 200px;max-width: 100%;overflow: auto;}#sk-container-id-3 input.sk-  
toggleable__control:checked~label.sk-toggleable__label-arrow:before {content: \"▾\";}#sk-  
container-id-3 div.sk-estimator input.sk-toggleable__control:checked~label.sk-toggleable__label  
{background-color: #d4ebff;}#sk-container-id-3 div.sk-label input.sk-  
toggleable__control:checked~label.sk-toggleable__label {background-color: #d4ebff;}#sk-container-  
id-3 input.sk-hidden--visually {border: 0;clip: rect(1px 1px 1px 1px);clip: rect(1px, 1px, 1px,  
1px);height: 1px;margin: -1px;overflow: hidden;padding: 0;position: absolute;width: 1px;}#sk-  
container-id-3 div.sk-estimator {font-family: monospace;background-color: #f0f8ff;border: 1px dotted  
black;border-radius: 0.25em;box-sizing: border-box;margin-bottom: 0.5em;}#sk-container-id-3 div.sk-  
estimator:hover {background-color: #d4ebff;}#sk-container-id-3 div.sk-parallel-item::after {content:  
\"\\\";width: 100%;border-bottom: 1px solid gray;flex-grow: 1;}#sk-container-id-3 div.sk-label:hover
```

```

label.sk-toggleable__label {background-color: #d4ebff;}#sk-container-id-3 div.sk-serial::before
{content: "\"";position: absolute;border-left: 1px solid gray;box-sizing: border-box;top: 0;bottom:
0;left: 50%;z-index: 0;}#sk-container-id-3 div.sk-serial {display: flex;flex-direction: column;align-items:
center;background-color: white;padding-right: 0.2em;padding-left: 0.2em;position: relative;}#sk-
container-id-3 div.sk-item {position: relative;z-index: 1;}#sk-container-id-3 div.sk-parallel {display:
flex;align-items: stretch;justify-content: center;background-color: white;position: relative;}#sk-
container-id-3 div.sk-item::before, #sk-container-id-3 div.sk-parallel-item::before {content:
\"\";position: absolute;border-left: 1px solid gray;box-sizing: border-box;top: 0;bottom: 0;left: 50%;z-
index: -1;}#sk-container-id-3 div.sk-parallel-item {display: flex;flex-direction: column;z-index:
1;position: relative;background-color: white;}#sk-container-id-3 div.sk-parallel-item:first-child::after
{align-self: flex-end;width: 50%;}#sk-container-id-3 div.sk-parallel-item:last-child::after {align-self:
flex-start;width: 50%;}#sk-container-id-3 div.sk-parallel-item:only-child::after {width: 0;}#sk-
container-id-3 div.sk-dashed-wrapped {border: 1px dashed gray;margin: 0 0.4em 0.5em 0.4em;box-
sizing: border-box;padding-bottom: 0.4em;background-color: white;}#sk-container-id-3 div.sk-label
label {font-family: monospace;font-weight: bold;display: inline-block;line-height: 1.2em;}#sk-
container-id-3 div.sk-label-container {text-align: center;}#sk-container-id-3 div.sk-container {/*
jupyter's `normalize.less` sets `[hidden] { display: none; }` but bootstrap.min.css set `[hidden] {
display: none !important; }` so we also need the `!important` here to be able to override the default
hidden behavior on the sphinx rendered scikit-learn.org. See: https://github.com/scikit-learn/scikit-
learn/issues/21755 */display: inline-block !important;position: relative;}#sk-container-id-3 div.sk-
text-repr-fallback {display: none;}</style><div id=\"sk-container-id-3\" class=\"sk-top-
container\"><div class=\"sk-text-repr-fallback\"><pre>LinearRegression()</pre><b>In a Jupyter
environment, please rerun this cell to show the HTML representation or trust the notebook. <br
/>On GitHub, the HTML representation is unable to render, please try loading this page with
nbviewer.org.</b></div><div class=\"sk-container\" hidden><div class=\"sk-item\"><div class=\"sk-
estimator sk-toggleable\"><input class=\"sk-toggleable__control sk-hidden--visually\" id=\"sk-
estimator-id-3\" type=\"checkbox\" checked><label for=\"sk-estimator-id-3\" class=\"sk-
toggleable__label sk-toggleable__label-arrow\">LinearRegression</label><div class=\"sk-
toggleable__content\"><pre>LinearRegression()</pre></div></div></div></div></div>

```

```

],

```

```

"text/plain": [

```

```

    "LinearRegression()"

```

```

]

```

```

},

```

```

"execution_count": 54,

```

```

"metadata": {},

```

```

"output_type": "execute_result"

```

```

}

```

```

],

```

```

"source": [

```

```

    "model.fit(X_train,Y_train)"

```

```

]
},
{
  "cell_type": "code",
  "execution_count": 55,
  "id": "2848cd4b",
  "metadata": {},
  "outputs": [],
  "source": [
    "prediction=model.predict(X_test)"
  ]
},
{
  "cell_type": "code",
  "execution_count": 56,
  "id": "c3040da6",
  "metadata": {},
  "outputs": [
    {
      "data": {
        "text/plain": [
          "array([17.94221632, 11.28731032, 19.36406753, 15.25309499, 8.85035488,\n",
          "      11.08345095, 24.54827272, 10.72184726, 18.64190205, 17.03877174,\n",
          "      14.71887065, 13.30204368, 19.10529921, 11.4654086 , 13.82417942,\n",
          "      14.56139355, 16.86156735, 17.27369971, 17.78634747, 21.28201581,\n",
          "      19.1397699 , 11.05346066, 9.93276334, 11.49854807, 8.5309559 ,\n",
          "      13.26073545, 21.75566382, 16.96066432, 24.25791572, 11.92392893,\n",
          "      16.40376866, 21.96064207, 9.51770237, 10.16209996, 10.08141197,\n",
          "      10.45644324, 15.54919097, 9.92133897, 13.83425453, 12.54320065,\n",
          "      14.5093965 , 12.61758414, 6.46804914, 20.25656292, 23.16303373,\n",
          "      24.65508581, 15.20817964, 9.27513655, 18.72004324, 18.16217728,\n"

```

```
"    12.73063894, 16.65175796, 15.79776032, 8.36188762, 21.22771856,\n"    9.52094834, 23.88078008, 23.29062902, 19.6930198 , 16.76467522])"\n]\n},\n"execution_count": 56,\n"metadata": {},\n"output_type": "execute_result"\n}\n],\n"source": [\n  "prediction"\n]\n},\n{\n  "cell_type": "code",\n  "execution_count": 57,\n  "id": "78627cd0",\n  "metadata": {},\n  "outputs": [\n    {\n      "data": {\n        "text/plain": [\n          "5.022730805826264"\n        ]\n      },\n      "execution_count": 57,\n      "metadata": {},\n      "output_type": "execute_result"\n    }\n  ],\n  "source": [
```

```
"model.intercept_"
]
},
{
  "cell_type": "code",
  "execution_count": 58,
  "id": "d849d807",
  "metadata": {},
  "outputs": [
    {
      "data": {
        "text/plain": [
          "array([ 0.05223455,  0.10672463, -0.00120158])"
        ]
      },
      "execution_count": 58,
      "metadata": {},
      "output_type": "execute_result"
    }
  ],
  "source": [
    "model.coef_"
  ]
},
{
  "cell_type": "code",
  "execution_count": 59,
  "id": "7966b8f2",
  "metadata": {},
  "outputs": [],
  "source": [
```

```
"accuracy_score=model.score(X_test,Y_test)*100"
]
},
{
  "cell_type": "code",
  "execution_count": 60,
  "id": "d3c6c350",
  "metadata": {},
  "outputs": [
    {
      "name": "stdout",
      "output_type": "stream",
      "text": [
        "Accuracy of model: 88.77675297095178%\n"
      ]
    }
  ],
  "source": [
    "print(f\"Accuracy of model: {accuracy_score}%\")"
  ]
},
{
  "metadata": {
    "kernel_spec": {
      "display_name": "Python 3 (ipykernel)",
      "language": "python",
      "name": "python3"
    },
    "language_info": {
      "codemirror_mode": {
        "name": "ipython",
```



```
"version": 3
},
"file_extension": ".py",
"mimetype": "text/x-python",
"name": "python",
"nbconvert_exporter": "python",
"pygments_lexer": "ipython3",
"version": "3.10.2"
}
},
"nbformat": 4,
"nbformat_minor": 5
}
```