1 #include<stdio.h>

2 #include<stdlib.h>

3 #include<time.h>

4 int main(){

5 int a;

6 int b;

7 int c;

8 int d;

9

10 int M;

11 int N[4]={1,2,3,4};/\*the integer inside the array can only be 1,2,3,4,5\*/

12

13 printf("Please insert 4 integers within the range of 1 to 5, linespaces are required to separate each integer.\n");

14

15 do{

16 scanf("%d",&M);

17 d=M%10;

18 c=(M/10)%10;

19 b=(M/100)%10;

20 a=(M/1000)%10;

21

22 if ((a>5||a==0)||(b>5||b==0)||(c>5||c==0)||(d>5||d==0))

23 {

24 printf("the input integer over the range of integer given.");

25 }

26 else if(a==b||a==c||a==d||b==c||b==d||d==c)

27 if(a=b||a==c||a==d||b==c||b==d||d==c)

28 {

29 printf("the input integer repeat");

30 }

31 else

32 { }

33

34 else if(a==1&&b==2&&c==3&&d==4)

35 if(a==1&&b==2&&c==3&&d==4)

36 {

37 printf("4H\n");

38 }

39 else

40 {}

41

42

43 else if((a==1&&b==2&&c==3&&d!=4)||(a==1&&b==2&&c!=3&&d==4)||(a==1&&b!=2&&c==3&&d==4)||(a!=1&&b==2&&c==3&&d==4))

44 if((a==1&&b==2&&c==3&&d!=4)||(a==1&&b==2&&c!=3&&d==4)||(a==1&&b!=2&&c==3&&d==4)||(a!=1&&b==2&&c==3&&d==4))

45 {

46 printf("3H");

-- INSERT -- 6,7 5%

47 }

48 else

49 { }

50

51 else if((a==1&&b==2&&c!=3&&d!=4)||(a!=1&&b!=2&&c==3&&d==4)||(a==1&&b!=2&&c!=3&&d==4)||(a!=1&&b==2&&c==3&&d!=4)||(a!=1&&b==2&&c!=3&&d==4)||(a==1&&b!=2&&c==3&&d!=4))

52 if((a==1&&b==2&&c==4&&d==3)||(a==2&&b==1&&c==3&&d==4)||(a==1&&b==3&&c==2&&d==4)||(a==4&&b==2&&c==3&&d==1)||(a==3&&b==2&&c==1&&d==4)||(a==1&&b==4&&c==3&&d==2))

53 {

54 printf("2H2X");

55 }

56 else

57 {

58 if((a==1&&b==2&&c==4&&d!=3)||(a==2&&b!=1&&c==3&&d==4)||(a==1&&b==3&&c!=2&&d==4)||(a==4&&b==2&&c==3&&d!=1)||(a==1&&b==4&&c==3&&d!=2)||(a==1&&b==2&&c!=4&&d==3 )||(a!=2&&b==1&&c==3&&d==4)||(a==1&&b!=3&&c==2&&d==4)||(a!=4&&b==2&&c==3&&d==1)||(a==1&&b!=4&&c==3&&d==2))

59 {

60 printf("2H1X");

61 }

62 else

63 {

64 printf("2H");

65 }

66

67 }

68

69

70 else if(a==1||b==2||c==3||d==4)

71

72 if((a==1&&b==4&&c==2&&d==3)||(a==1&&b==3&&c==4&&d==2)

73 ||(b==2&&a==4&&c==1&&d==3)||(b==2&&a==3&&c==4&&d==1)

74 ||(c==3&&a==2&&b==4&&d==1)||(c==3&&a==4&&b==1&&d==2)

75 ||(d==4&&a==3&&b==1&&c==2)||(d==4&&a==2&&b==3&&c==1))

76 {

77 printf("1H3X");

78 }

79 else

80 {

81 if((a==1&&b==1||3||4&&c==1||2||4&&d!=1||2||3||4)

82 ||(a==1&&b==1||3||4&&c!=1||2||3||4&&d==1||2||3)

83 ||(a==1&&b!=1||2||3||4&&c==1||2||4&&d==1||2||3)

84

85 ||(a==2||3||4&&b==2&&c==1||2||4&&d!=1||2||3||4)

86 || (a==2||3||4&&b==2&&c!=1||2||3||4&&d==1||2||3)

-- INSERT -- 47,3-6 48%

87 ||(a!=1||2||3||4&&b==2&&c==1||2||4&&d==1||2||3)

88

89 ||(a==2||3||4&&b!=1||2||3||4&&c==3&&d==1||2||3)

90 ||(a!=1||2||3||4&&b==1||3||4&&c==3&&d==1||2||3)

91 ||(a==2||3||4&&b==1||3||4&&c==3&&d!=1||2||3||4)

92

93 ||(a==2||3||4&&b==1||3||4&&c!=1||2||3||4&&d==4)

94 ||(a==2||3||4&&b!=1||2||3||4&&c==1||2||4&&d==4)

95 ||(a!=1||2||3||4&&b==1||3||4&&c==1||2||4&&d==4))

96 {

97 printf("1H2X");

98 }

99 else

100 {

101 //as the input integer can't be repeated,so the output of '1H1X' will never appear.

102 }

103 }

104

105 else if (a==2||3||4&&b==1||3||4&&c==1||2||4&&d==1||2||3)

106 if (a==2||3||4&&b==1||3||4&&c==1||2||4&&d==1||2||3)

107 {

108 printf("4X");

109 }

110 else

111 {

112 if((b==1||3||4&&c==1||2||4&&d==1||2||3)||(a==2||3||4&&c==1||2||4&&d==1||2||3)||(a==2||3||4&&b==1||3||4&&d==1||2||3)||(a==2||3||4&&b==1||3||4&&c==1||2||4))

113 {

114 printf("3X");

115 }

116 else

117 {

118 //as the input integer can't be reeated,so the output of '2X','1X''0X'will never appear.

119 }

120 }

121

122 }while((a!=1)&&(b!=2)&&(c!=3)&&(d!=4));

123 return 0;

124 }

125

126

127 /\*else if(a==1&&b==2&&c==3&&d==4)

8 34 if(a==1&&b==2&&c==3&&d==4)

129 35 {

130 36 printf("4H\n");

131 37 }

132 38 else

133 39 { }

134 \* 125,0-1 92%