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Function Playfair(n1:String; n2:String; n3:Byte): String;
//-----\\
//-----Author: Carlos Guzman-----\\
//-----Use: Playfair('Text to encrypt','Password',1/2)-----\\
//-----1 = Encrypt, 2 = Decrypt-----\\
//-----\\
Const n4 = ' !"#$$%^'+Chr(39)+'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNPOQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz
{|}~';
Var n5,n8,n9,n11:Integer; n6,n7:String; Label n10, n12;
Begin

If (Length(n1) = 0) OR (Length(n2) = 0) Then Exit;
If Length(n2) > 95 Then Exit;
If n3 <> 1 Then If n3 <> 2 Then Exit;

If Length(n1) Mod 2 <> 0 Then n1:=n1+'x';

For n5:=1 To Length(n2) Do If Pos(Copy(n2,n5,1),n6) = 0 Then
n6:=n6+Copy(n2,n5,1);
For n5:=1 To Length(n4) Do If Pos(Copy(n4,n5,1),n6) = 0 Then
n6:=n6+Copy(n4,n5,1);
n5:=1; n11:=0;

While n5 <= Length(n1) Do Begin
n8:=Pos(Copy(n1,n5,1),n6);
n9:=Pos(Copy(n1,n5+1,1),n6);

If ValF2(n8 - n9) Mod 5 = 0 Then Begin
If n3 = 1 Then Begin
If (n8+5 > 95) OR (n9+5 > 95) Then Begin
If (n8+5 > 95) Then n7:=n7+Copy(n6,n8-90,1)+Copy(n6,n9+5,1);
If (n9+5 > 95) Then n7:=n7+Copy(n6,n8+5,1)+Copy(n6,n9-90,1);
End Else n7:=n7+Copy(n6,n8+5,1)+Copy(n6,n9+5,1);
End Else Begin
If (n8 <= 5) OR (n9 <= 5) Then Begin
If (n8 <= 5) Then n7:=n7+Copy(n6,n8+90,1)+Copy(n6,n9-5,1);
If (n9 <= 5) Then n7:=n7+Copy(n6,n8-5,1)+Copy(n6,n9+90,1);
End Else n7:=n7+Copy(n6,n8-5,1)+Copy(n6,n9-5,1);
end;
Goto n12;
end;

If Between(n8,1,5) AND Between(n9,6,10) Then n11:=5;
If Between(n8,1,5) AND Between(n9,11,15) Then n11:=10;
If Between(n8,1,5) AND Between(n9,16,20) Then n11:=15;
If Between(n8,1,5) AND Between(n9,21,25) Then n11:=20;
If Between(n8,1,5) AND Between(n9,26,30) Then n11:=25;
If Between(n8,1,5) AND Between(n9,31,35) Then n11:=30;
If Between(n8,1,5) AND Between(n9,36,40) Then n11:=35;
If Between(n8,1,5) AND Between(n9,41,45) Then n11:=40;
If Between(n8,1,5) AND Between(n9,46,50) Then n11:=45;
If Between(n8,1,5) AND Between(n9,51,55) Then n11:=50;
If Between(n8,1,5) AND Between(n9,56,60) Then n11:=55;
If Between(n8,1,5) AND Between(n9,61,65) Then n11:=60;
If Between(n8,1,5) AND Between(n9,66,70) Then n11:=65;
If Between(n8,1,5) AND Between(n9,71,75) Then n11:=70;

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If Between(n8,1,5) AND Between(n9,76,80) Then n11:=75;
If Between(n8,1,5) AND Between(n9,81,85) Then n11:=80;
If Between(n8,1,5) AND Between(n9,86,90) Then n11:=85;
If Between(n8,1,5) AND Between(n9,91,95) Then n11:=90;
If Between(n8,6,10) AND Between(n9,11,15) Then n11:=5;
If Between(n8,6,10) AND Between(n9,16,20) Then n11:=10;
If Between(n8,6,10) AND Between(n9,21,25) Then n11:=15;
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If Between(n8,6,10) AND Between(n9,91,95) Then n11:=85;
If Between(n8,11,15) AND Between(n9,16,20) Then n11:=5;
If Between(n8,11,15) AND Between(n9,21,25) Then n11:=10;
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If Between (n8,36,40) AND Between (n9,41,45) Then n11:=5;
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If Between (n8,36,40) AND Between (n9,51,55) Then n11:=15;
If Between (n8,36,40) AND Between (n9,56,60) Then n11:=20;
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If Between (n8,41,45) AND Between (n9,61,65) Then n11:=20;
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If Between (n8,46,50) AND Between (n9,61,65) Then n11:=15;
If Between (n8,46,50) AND Between (n9,66,70) Then n11:=20;
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If Between (n8,56,60) AND Between (n9,61,65) Then n11:=5;
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If Between (n8,61,65) AND Between (n9,81,85) Then n11:=20;
If Between (n8,61,65) AND Between (n9,86,90) Then n11:=25;
If Between (n8,61,65) AND Between (n9,91,95) Then n11:=30;
If Between (n8,66,70) AND Between (n9,71,75) Then n11:=5;
If Between (n8,66,70) AND Between (n9,76,80) Then n11:=10;
If Between (n8,66,70) AND Between (n9,81,85) Then n11:=15;
If Between (n8,66,70) AND Between (n9,86,90) Then n11:=20;
If Between (n8,66,70) AND Between (n9,91,95) Then n11:=25;
If Between (n8,71,75) AND Between (n9,76,80) Then n11:=5;
If Between (n8,71,75) AND Between (n9,81,85) Then n11:=10;
If Between (n8,71,75) AND Between (n9,86,90) Then n11:=15;
If Between (n8,71,75) AND Between (n9,91,95) Then n11:=20;
If Between (n8,76,80) AND Between (n9,81,85) Then n11:=5;
If Between (n8,76,80) AND Between (n9,86,90) Then n11:=10;
If Between (n8,76,80) AND Between (n9,91,95) Then n11:=15;
If Between (n8,81,85) AND Between (n9,86,90) Then n11:=5;
If Between (n8,81,85) AND Between (n9,91,95) Then n11:=10;
If Between (n8,86,90) AND Between (n9,91,95) Then n11:=5;

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If Between (n9,1,5) AND Between (n8,6,10) Then n11:=5;
If Between (n9,1,5) AND Between (n8,11,15) Then n11:=10;
If Between (n9,1,5) AND Between (n8,16,20) Then n11:=15;
If Between (n9,1,5) AND Between (n8,21,25) Then n11:=20;
If Between (n9,1,5) AND Between (n8,26,30) Then n11:=25;
If Between (n9,1,5) AND Between (n8,31,35) Then n11:=30;
If Between (n9,1,5) AND Between (n8,36,40) Then n11:=35;
If Between (n9,1,5) AND Between (n8,41,45) Then n11:=40;
If Between (n9,1,5) AND Between (n8,46,50) Then n11:=45;
If Between (n9,1,5) AND Between (n8,51,55) Then n11:=50;
If Between (n9,1,5) AND Between (n8,56,60) Then n11:=55;
If Between (n9,1,5) AND Between (n8,61,65) Then n11:=60;
If Between (n9,1,5) AND Between (n8,66,70) Then n11:=65;

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If Between(n9,1,5) AND Between(n8,71,75) Then n11:=70;
If Between(n9,1,5) AND Between(n8,76,80) Then n11:=75;
If Between(n9,1,5) AND Between(n8,81,85) Then n11:=80;
If Between(n9,1,5) AND Between(n8,86,90) Then n11:=85;
If Between(n9,1,5) AND Between(n8,91,95) Then n11:=90;
If Between(n9,6,10) AND Between(n8,11,15) Then n11:=5;
If Between(n9,6,10) AND Between(n8,16,20) Then n11:=10;
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If Between(n9,21,25) AND Between(n8,41,45) Then n11:=20;

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If Between (n9,21,25) AND Between (n8,46,50) Then n11:=25;
If Between (n9,21,25) AND Between (n8,51,55) Then n11:=30;
If Between (n9,21,25) AND Between (n8,56,60) Then n11:=35;
If Between (n9,21,25) AND Between (n8,61,65) Then n11:=40;
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If Between (n9,26,30) AND Between (n8,86,90) Then n11:=60;
If Between (n9,26,30) AND Between (n8,91,95) Then n11:=65;
If Between (n9,31,35) AND Between (n8,36,40) Then n11:=5;
If Between (n9,31,35) AND Between (n8,41,45) Then n11:=10;
If Between (n9,31,35) AND Between (n8,46,50) Then n11:=15;
If Between (n9,31,35) AND Between (n8,51,55) Then n11:=20;
If Between (n9,31,35) AND Between (n8,56,60) Then n11:=25;
If Between (n9,31,35) AND Between (n8,61,65) Then n11:=30;
If Between (n9,31,35) AND Between (n8,66,70) Then n11:=35;
If Between (n9,31,35) AND Between (n8,71,75) Then n11:=40;
If Between (n9,31,35) AND Between (n8,76,80) Then n11:=45;
If Between (n9,31,35) AND Between (n8,81,85) Then n11:=50;
If Between (n9,31,35) AND Between (n8,86,90) Then n11:=55;
If Between (n9,31,35) AND Between (n8,91,95) Then n11:=60;
If Between (n9,36,40) AND Between (n8,41,45) Then n11:=5;
If Between (n9,36,40) AND Between (n8,46,50) Then n11:=10;
If Between (n9,36,40) AND Between (n8,51,55) Then n11:=15;
If Between (n9,36,40) AND Between (n8,56,60) Then n11:=20;
If Between (n9,36,40) AND Between (n8,61,65) Then n11:=25;
If Between (n9,36,40) AND Between (n8,66,70) Then n11:=30;
If Between (n9,36,40) AND Between (n8,71,75) Then n11:=35;
If Between (n9,36,40) AND Between (n8,76,80) Then n11:=40;
If Between (n9,36,40) AND Between (n8,81,85) Then n11:=45;
If Between (n9,36,40) AND Between (n8,86,90) Then n11:=50;
If Between (n9,36,40) AND Between (n8,91,95) Then n11:=55;
If Between (n9,41,45) AND Between (n8,46,50) Then n11:=5;
If Between (n9,41,45) AND Between (n8,51,55) Then n11:=10;
If Between (n9,41,45) AND Between (n8,56,60) Then n11:=15;
If Between (n9,41,45) AND Between (n8,61,65) Then n11:=20;
If Between (n9,41,45) AND Between (n8,66,70) Then n11:=25;
If Between (n9,41,45) AND Between (n8,71,75) Then n11:=30;
If Between (n9,41,45) AND Between (n8,76,80) Then n11:=35;
If Between (n9,41,45) AND Between (n8,81,85) Then n11:=40;
If Between (n9,41,45) AND Between (n8,86,90) Then n11:=45;
If Between (n9,41,45) AND Between (n8,91,95) Then n11:=50;
If Between (n9,46,50) AND Between (n8,51,55) Then n11:=5;
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If Between(n9,46,50) AND Between(n8,56,60) Then n11:=10;
If Between(n9,46,50) AND Between(n8,61,65) Then n11:=15;
If Between(n9,46,50) AND Between(n8,66,70) Then n11:=20;
If Between(n9,46,50) AND Between(n8,71,75) Then n11:=25;
If Between(n9,46,50) AND Between(n8,76,80) Then n11:=30;
If Between(n9,46,50) AND Between(n8,81,85) Then n11:=35;
If Between(n9,46,50) AND Between(n8,86,90) Then n11:=40;
If Between(n9,46,50) AND Between(n8,91,95) Then n11:=45;
If Between(n9,51,55) AND Between(n8,56,60) Then n11:=5;
If Between(n9,51,55) AND Between(n8,61,65) Then n11:=10;
If Between(n9,51,55) AND Between(n8,66,70) Then n11:=15;
If Between(n9,51,55) AND Between(n8,71,75) Then n11:=20;
If Between(n9,51,55) AND Between(n8,76,80) Then n11:=25;
If Between(n9,51,55) AND Between(n8,81,85) Then n11:=30;
If Between(n9,51,55) AND Between(n8,86,90) Then n11:=35;
If Between(n9,51,55) AND Between(n8,91,95) Then n11:=40;
If Between(n9,56,60) AND Between(n8,61,65) Then n11:=5;
If Between(n9,56,60) AND Between(n8,66,70) Then n11:=10;
If Between(n9,56,60) AND Between(n8,71,75) Then n11:=15;
If Between(n9,56,60) AND Between(n8,76,80) Then n11:=20;
If Between(n9,56,60) AND Between(n8,81,85) Then n11:=25;
If Between(n9,56,60) AND Between(n8,86,90) Then n11:=30;
If Between(n9,56,60) AND Between(n8,91,95) Then n11:=35;
If Between(n9,61,65) AND Between(n8,66,70) Then n11:=5;
If Between(n9,61,65) AND Between(n8,71,75) Then n11:=10;
If Between(n9,61,65) AND Between(n8,76,80) Then n11:=15;
If Between(n9,61,65) AND Between(n8,81,85) Then n11:=20;
If Between(n9,61,65) AND Between(n8,86,90) Then n11:=25;
If Between(n9,61,65) AND Between(n8,91,95) Then n11:=30;
If Between(n9,66,70) AND Between(n8,71,75) Then n11:=5;
If Between(n9,66,70) AND Between(n8,76,80) Then n11:=10;
If Between(n9,66,70) AND Between(n8,81,85) Then n11:=15;
If Between(n9,66,70) AND Between(n8,86,90) Then n11:=20;
If Between(n9,66,70) AND Between(n8,91,95) Then n11:=25;
If Between(n9,71,75) AND Between(n8,76,80) Then n11:=5;
If Between(n9,71,75) AND Between(n8,81,85) Then n11:=10;
If Between(n9,71,75) AND Between(n8,86,90) Then n11:=15;
If Between(n9,71,75) AND Between(n8,91,95) Then n11:=20;
If Between(n9,76,80) AND Between(n8,81,85) Then n11:=5;
If Between(n9,76,80) AND Between(n8,86,90) Then n11:=10;
If Between(n9,76,80) AND Between(n8,91,95) Then n11:=15;
If Between(n9,81,85) AND Between(n8,86,90) Then n11:=5;
If Between(n9,81,85) AND Between(n8,91,95) Then n11:=10;
If Between(n9,86,90) AND Between(n8,91,95) Then n11:=5;

If n9 > n8 Then Begin
n7:=n7+Copy(n6,n9-n11,1)+Copy(n6,n8+n11,1);
Goto n12;
End Else Begin
n7:=n7+Copy(n6,n9+n11,1)+Copy(n6,n8-n11,1);
Goto n12;
end;

If (Valf2(n8 - n9) < 5) AND (n11 = 0) Then Begin
If n3 = 1 Then Begin
If (n8 Mod 5 = 0) OR (n9 Mod 5 = 0) Then Begin
If n8 Mod 5 = 0 Then n7:=n7+Copy(n6,n8-4,1)+Copy(n6,n9+1,1);

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    If n9 Mod 5 = 0 Then n7:=n7+Copy(n6,n9+3,1)+Copy(n6,n8,1);
End Else n7:=n7+Copy(n6,n8+1,1)+Copy(n6,n9+1,1);
End Else Begin
If ((n8 - 1) Mod 5 = 0) OR ((n9 - 1) Mod 5 = 0) Then Begin
    If (n8 - 1) Mod 5 = 0 Then n7:=n7+Copy(n6,n8+4,1)+Copy(n6,n9-1,1);
    If (n9 - 1) Mod 5 = 0 Then n7:=n7+Copy(n6,n9,1)+Copy(n6,n8+3,1);
End Else n7:=n7+Copy(n6,n8-1,1)+Copy(n6,n9-1,1);
end;
end;

n12: Inc(n5,2); n11:=0;
end;
Result:=n7;
End;

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