

```

Program Fac_Prim;
Uses wincrt;
VAR
    N:integer;

(***** Saisie *****)
Procedure Saisie(VAR N:integer);
BEGIN
    Repeat
        Write('Entrer N : ');
        Readln(N);
    Until (N in [2..5]);
END;

(***** Premier *****)
Function Premier(N:integer):boolean;
VAR
    i,S:integer;
BEGIN
    S:=0;
    for i:=2 to (N DIV 2) do
        If (N MOD i = 0) Then
            S:=S+i;
    Premier:= S=0;
END;

(***** Factoriel *****)
Function Fact(N:integer):integer;
VAR
    i,F:integer;
BEGIN
    F:=1;
    for i:=2 to N do
        F:=F*i;
    Fact:= F;
END;

```

```

(***** Premier_Factoriel *****)
Function Premier_Factoriel(N:integer):boolean;
VAR
    i:integer;
    B:boolean;
BEGIN
    i:=0;
    Repeat
        i:=i+1;
        B:= (Fact(i)+1 = N) OR (Fact(i)-1 = N);
    Until (B) OR (Fact(i)-1>N);
    Premier_Factoriel:= (B) AND (Premier(N));
END;

(***** Premier_Primoriel *****)
Function Premier_Primoriel(N:integer):boolean;
VAR
    i:integer;
    P:longint;
BEGIN
    P:=1;
    i:=1;
    Repeat
        i:=i+1;
        If Premier(i) Then
            P:=P*i;
        Until (P+1 = N) OR (P-1 = N) OR (P-1>N);
    Premier_Primoriel:= ((P+1 = N) OR (P-1 = N)) AND (Premier(N));
END;

```

```
(***** Afficher_PF *****)
```

```
Procedure Afficher_PF(N:integer);
```

```
VAR
```

```
    i,nb:integer;
```

```
BEGIN
```

```
    nb:=0;
```

```
    i:=1;
```

```
    writeln('Les ',N,' premiers nombres "Premiers Factoriels" sont : ');
```

```
    Repeat
```

```
        i:=i+1;
```

```
        If Premier_Factoriel(i) Then
```

```
            BEGIN
```

```
                nb:=nb+1;
```

```
                writeln(nb,' ',i);
```

```
            END;
```

```
    Until (nb = N);
```

```
END;
```

```
(***** Afficher_PP *****)
```

```
Procedure Afficher_PP(N:integer);
```

```
VAR
```

```
    i,nb:integer;
```

```
BEGIN
```

```
    nb:=0;
```

```
    i:=1;
```

```
    writeln('Les ',N,' premiers nombres "Premiers Primoriels" sont : ');
```

```
    Repeat
```

```
        i:=i+1;
```

```
        If Premier_Primoriel(i) Then
```

```
            BEGIN
```

```
                nb:=nb+1;
```

```
                writeln(nb,' ',i);
```

```
            END;
```

```
    Until (nb = N);
```

```
END;
```

```
(***** Programme Principale *****)
```

```
BEGIN
```

```
    Saisie(N);
```

```
    Afficher_PF(N);
```

```
    Afficher_PP(N);
```

```
END.
```