```c
/* ------------------------------------------------------
   45 Minutes

   Write the MIPS assembly to implement the following C code. (return prime numbers <= 25)

   Save your program under your student id (for example,
   0811111.s)
*/

int inita(int x[], int n)
{
   int p;
   for (p=2; p<=n; p++)
      x[p]=p;
}

// --------------------
int s(int x[], int n)         // int x[] means pass a pointer (reference) to array of type int
{
   int a[100];
   int sqrtn = 5;
   int p, j, i;

   inita(a,n);

   for (p=2; p<=sqrtn; p++)
      if ( a[p] != 0 )
         for (j= p*p; j<=n; j += p)
            a[j] = 0;

   i = 0;
   for (p=2; p<=n; p++)
      if ( a[p] != 0 )
         x[i++] = a[p];

   return i;
}


/* ------------------------------------------------------ */
int main ()
{
   // use the assembler directive:
   // ell: .space 400
   // to reserve 400 bytes (array of 100x4) under label ell
   int ell[100], limit=25;
   int m;
   m = s(ell, limit);
}
```