

fpuexam

TITLE FPU example

.486

```
STCK    SEGMENT PARA STACK 'stack' use16
        DB                64 DUP ('my_stack')
STCK    ENDS
```

```
DATA1   SEGMENT PARA PUBLIC 'DATA' use16
```

```
f11     dd      1.0
f12     dd      2.0
f11_3   dd      1.3
x       dd      3.0
y       dd      4.0
z       dd      ?
```

; data definitions

```
DATA1   ENDS
```

```
COD1    SEGMENT PARA PUBLIC 'CODE' use16
```

```
MAIN    PROC     FAR
```

```
ASSUME  CS:COD1,DS:DATA1,SS:STCK
```

```
                PUSH    DS
                XOR     AX,AX
                PUSH    AX
                MOV     AX,DATA1
                MOV     DS,AX
```

finit

fld x ;Load X.

fld st(0) ;Duplicate X on TOS.

fmul ;Compute X**2.

fld y ;Load Y.

fld st(0) ;Duplicate Y on TOS.

fmul ;Compute Y**2.

fadd ;Compute X**2 + Y**2.

fsqrt ;Compute sqrt(x**2 + y**2).

fst Z ;Store away result in Z.

fwait

```
                RET
```

```
MAIN    ENDP
```

```
COD1    ENDS
```

```
                END     MAIN
```