1.4

a. 1280\*1024\*3=3.75MiB

b. 1280\*1024\*3\*8/(100\*106)=0.31457280s

1.10

1.10.1

当1个处理器：(2.56\*109\*1+1.28\*109\*12+2.56\*108\*5)/(2\*109)=1.28+7.68+0.64=9.6s

当2个处理器：(2.56\*109\*1/1.4+1.28\*109\*12/1.4+2.56\*108\*5)/(2\*109)= 1.28/1.4+7.68/1.4+0.64=7.04s, 加速比9.6/7.04≈1.36

当4个处理器：(2.56\*109\*1/2.8+1.28\*109\*12/2.8+2.56\*108\*5)/(2\*109)= 1.28/2.8+7.68/2.8+0.64=3.84s, 加速比9.6/3.84=2.5

当8个处理器：(2.56\*109\*1/5.6.4+1.28\*109\*12/5.6+2.56\*108\*5)/(2\*109)= 1.28/5.6+7.68/5.6+0.64=2.24s, 加速比9.6/2.24≈4.29

1.10.2

当1个处理器：（2.56\*109\*2+1.28\*109\*12+2.56\*108\*5）/(2\*109)=2.56+7.68+0.64=10.88s

当2个处理器：(2.56\*109\*2/1.4+1.28\*109\*12/1.4+2.56\*108\*5)/(2\*109)= 2.56/1.4+7.68/1.4+0.64≈7.95s

当4个处理器：(2.56\*109\*2/2.8+1.28\*109\*12/2.8+2.56\*108\*5)/(2\*109)= 2.56/2.8+7.68/2.8+0.64≈4.30s

当8个处理器：(2.56\*109\*2/5.6.4+1.28\*109\*12/5.6+2.56\*108\*5)/(2\*109)= 2.56/5.6+7.68/5.6+0.64≈2.47s

执行时间都相应增加了。

1.10.3

要使(2.56\*109\*1+1.28\*109\*x+2.56\*108\*5)/(2\*109)= (2.56\*109\*1/2.8+1.28\*109\*12/2.8+2.56\*108\*5)/(2\*109)

即1.28+0.64x+0.64=1.28/2.8+7.68/2.8+0.64

X=3, CPI应该降低为3.