Name:	

Student ID:								

Pop Quiz (Week 6) [11mins] – 11 pts

1) [2+2+1+1=6] Consider a texture of size 128x128. Mipmapped representation consist of different levels as follows: Level 1: 128x128, Level 2: 64x64, Level 3: 32x32, Level 4: 16 x16, Level 5: 8x8, Level 6: 4x4, Level 7: 2x2, level 8: 1x1. Triangle **C** occupies 32 pixels from viewpoint A and 132 pixels from viewpoint B.

a) Which level of the mipmap will be used for viewpoint A?

- **i.** Level 1
- **ii.** Level 6
- **iii.** Level 4
- **iv.** Level 5

b) Which level of the mipmap will be used for viewpoint B?

- **i.** Level 1
- **ii.** Level 6
- **iii.** Level 4
- **iv.** Level 5

c) What artifacts will be seen if a higher level than the appropriate one is used?

- **i.** Blurring
- **ii.** Aliasing
- **iii.** Holes

d) What artifacts will be seen if a lower level than the appropriate one is used?

- **i.** Blurring
- **ii.** Aliasing
- **iii.** Holes

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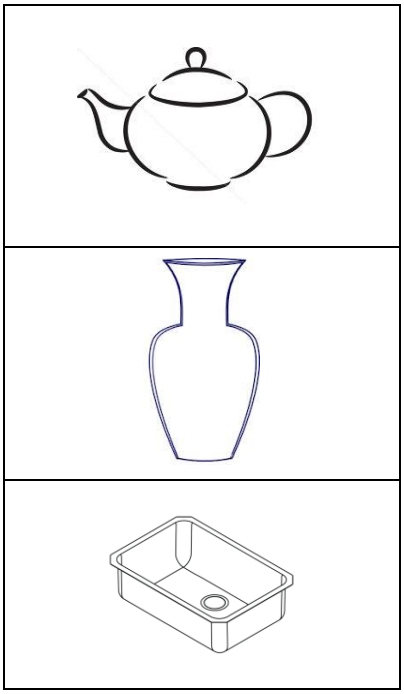
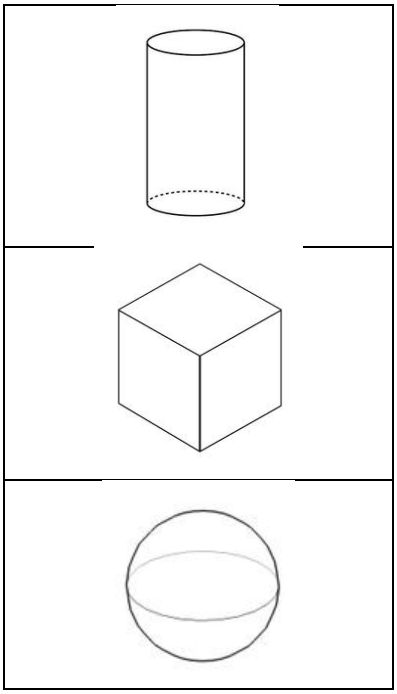
2) [3+1+1=5] The left column has models that we want to map a texture on. The right column shows different intermediate geometries we can use.

a) Match the intermediate geometry that you should use for each of the objects.





b) Using the correct intermediate geometry helps in:

- **i.** Proper sampling of the texture
- **ii.** Reducing distortions in the mapped texture
- **iii.** Achieving anti-aliasing

c) Texture mapping is:

- **i.** View Dependent (changes with change of viewpoint)
- **ii.** View Independent (does not change with change of viewpoint)