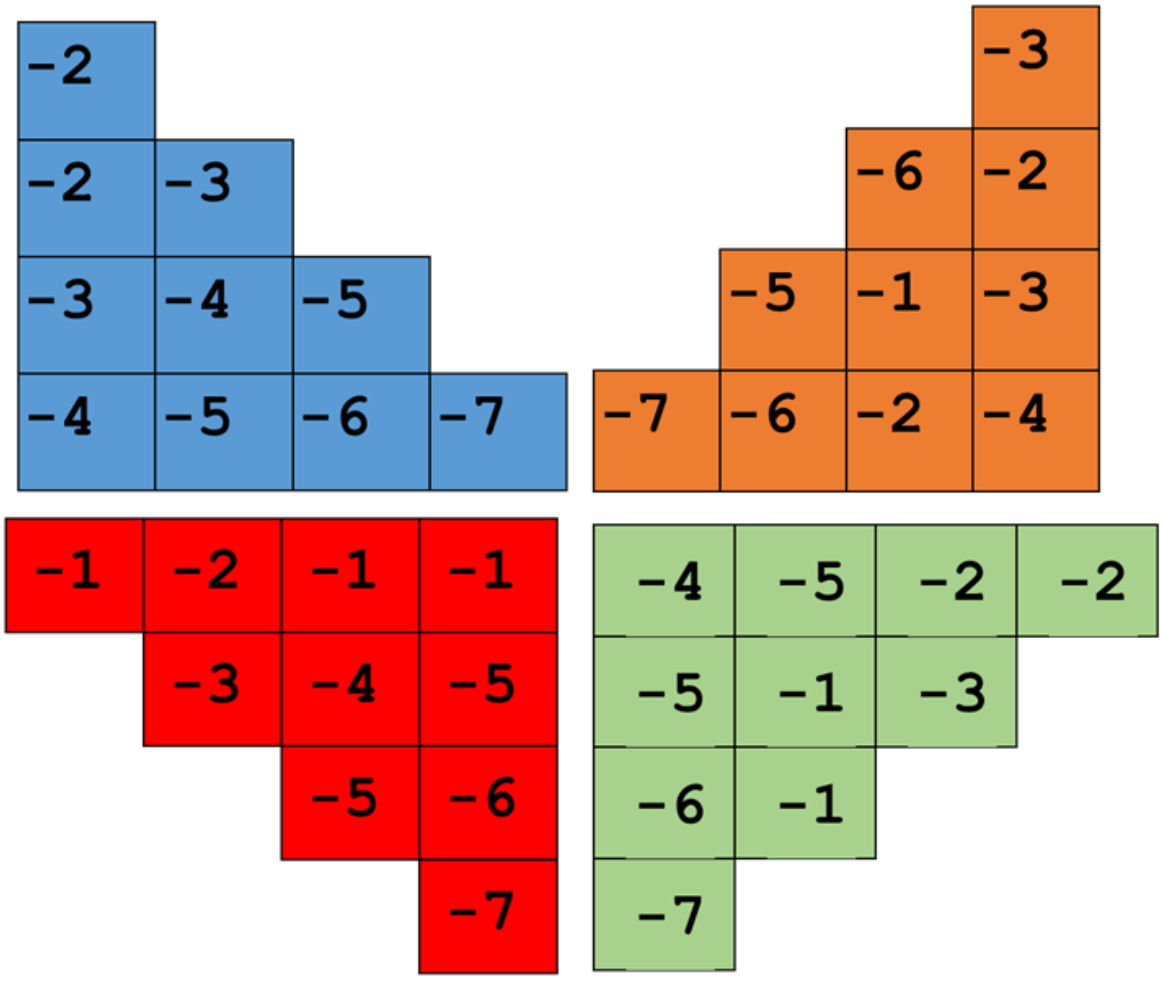
Quiz on HSR and Texture

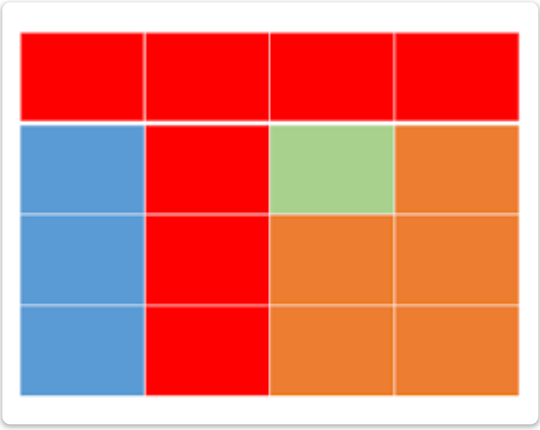
The respondent's email (**18101009@uap-bd.edu**) was recorded on submission of this form.

Identify the back facing surfaces from the given normal vectors of the surfaces: S1 (-4, 3, -5), S2 (6, -3, 5), S3 (9, 2, -1), S4 (-4, -11, -11),

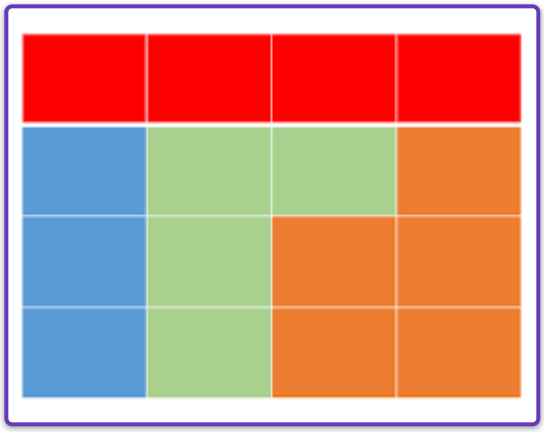
- ○ S1, S2, S3, S4
- ○ S1, S2
- ○ S3, S4
- ◉ S1, S3, S4
- ○ S1

Following triangles (Z-value of each pixel is given) are present in a scene. What will be the output after applying Z-Buffering algorithm?

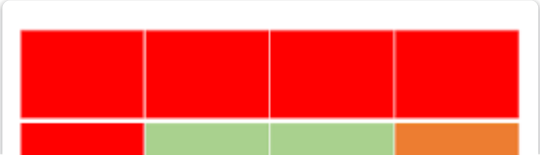


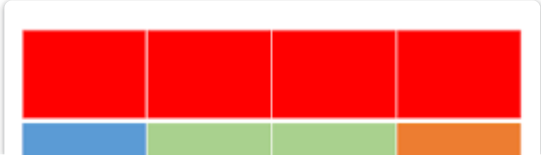


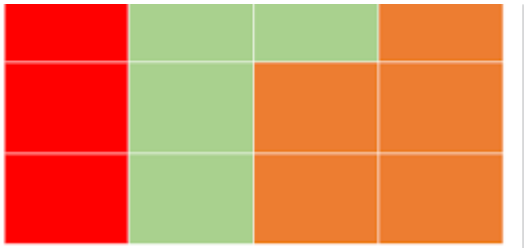
Option 1



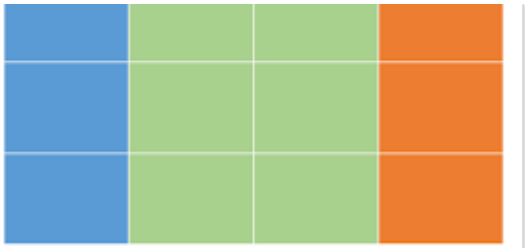
Option 2







Option 3



Option 4

What are the advantages of Z-Buffering algorithm?

- [ ] can handle transparency properly
- [x] no primitive sorting needed
- [x] can handle any primitive
- [ ] needs memory to keep the z-values

Which of the following intermediate surfaces are used in the Two Step Texture mapping approach?

- [x] box
- [ ] points
- [ ] triangles
- [x] cylinders

When optimal texture mapping is achieved?

- [ ] texel size > pixel size
- [ ] texel size < pixel size
- [x] texel size ≈ pixel size
- [ ] texel size = picture size

Which of the following approaches can be used if the given texture coordinates (u,v) are outside[0,1] range?

- [ ] Barycentric
- [ ] tiling
- [ ] two step mapping
- [x] clamping
- [ ] planer mapping

Correct answer

- [x] tiling
- [x] clamping

What is Mip Mapping ?

- [ ] Mapping texture to six rectangles
- [x] A pre-calculated, optimized collection of images accompanying a main texture, used to increase rendering speed
- [ ] Maping texture to planar surface
- [ ] Specifying texture coordinates (u,v) during modeling, for all polygon vertices