

# CSC 240

# Computer Graphics

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Fall 2016  
Smith College

# Outline: 11/14

- Recap lighting and Lab 9
- Texture mapping
- Lab 10: Texture mapping
  - **HW 7**: due Wed
  - **HW 8**: due next Tues (short!)
  - **Office Hours**: Mon/Tues 4-5pm
    - can also come Thurs 4-5pm

# Mid-Semester Assessment

**Q2: What about this course and your professor's teaching of it needs change or improvement and why?**

- Pre-requisites: linear algebra? data structures?
  - Probably not in the near future
  - Ongoing conversations in the department
  - For now, trying to keep math as light as possible, but it's a core part of computer graphics
- More coding and implementation in class
- More feedback on homework, faster grading
- Clearer homework instructions and grading rubric
- Some want shorter homeworks, some longer

# Mid-Semester Assessment

**Q3: What can I do as a student to improve my learning in this class?**

- Read the book
- Attend every class
- Ask more questions, both in class and on Piazza
- Start assignments earlier
- Go to office hours and TA hours
- Review materials earlier, not just before exams
- More cooperation with other students

# Mid-Semester Assessment

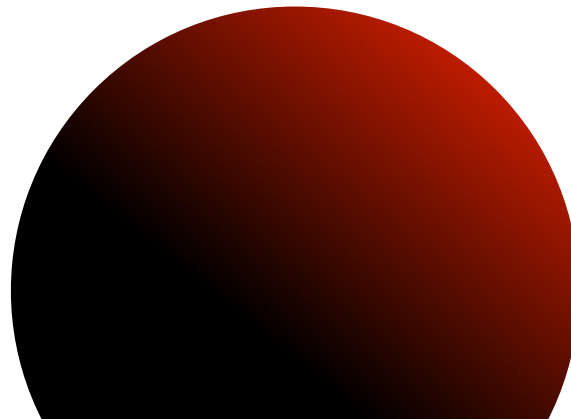
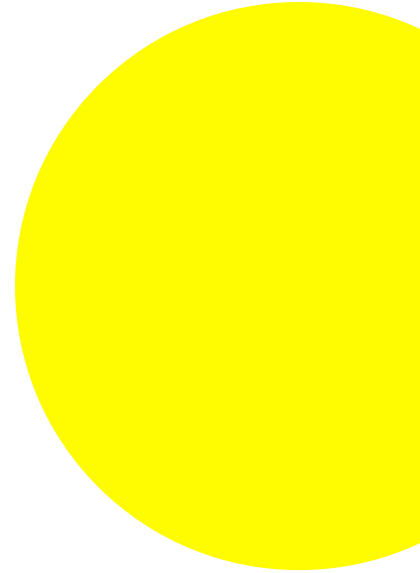
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**More colored pens!**

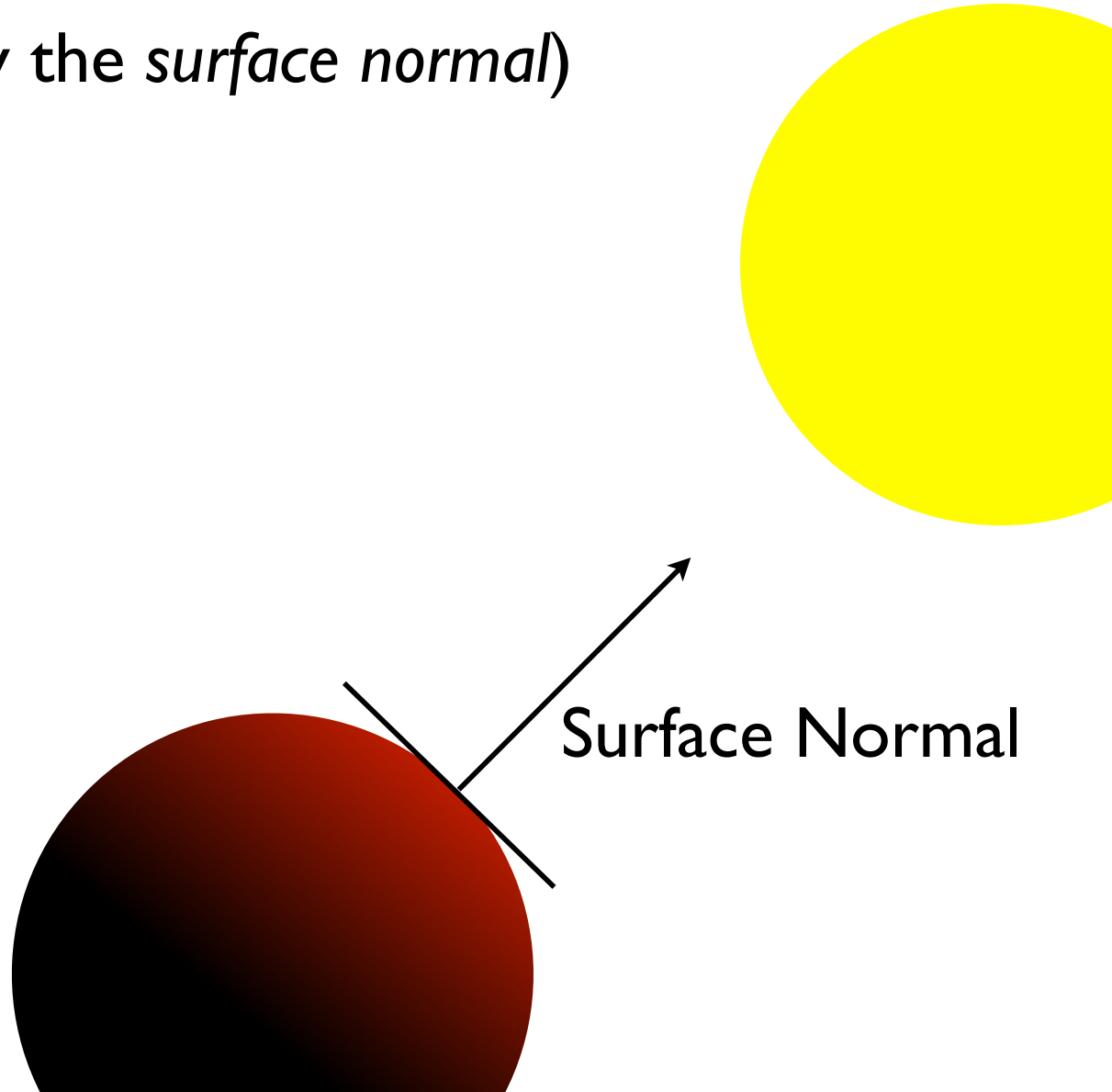
# Lighting

Lighting is determined by the surface's angle to the light source



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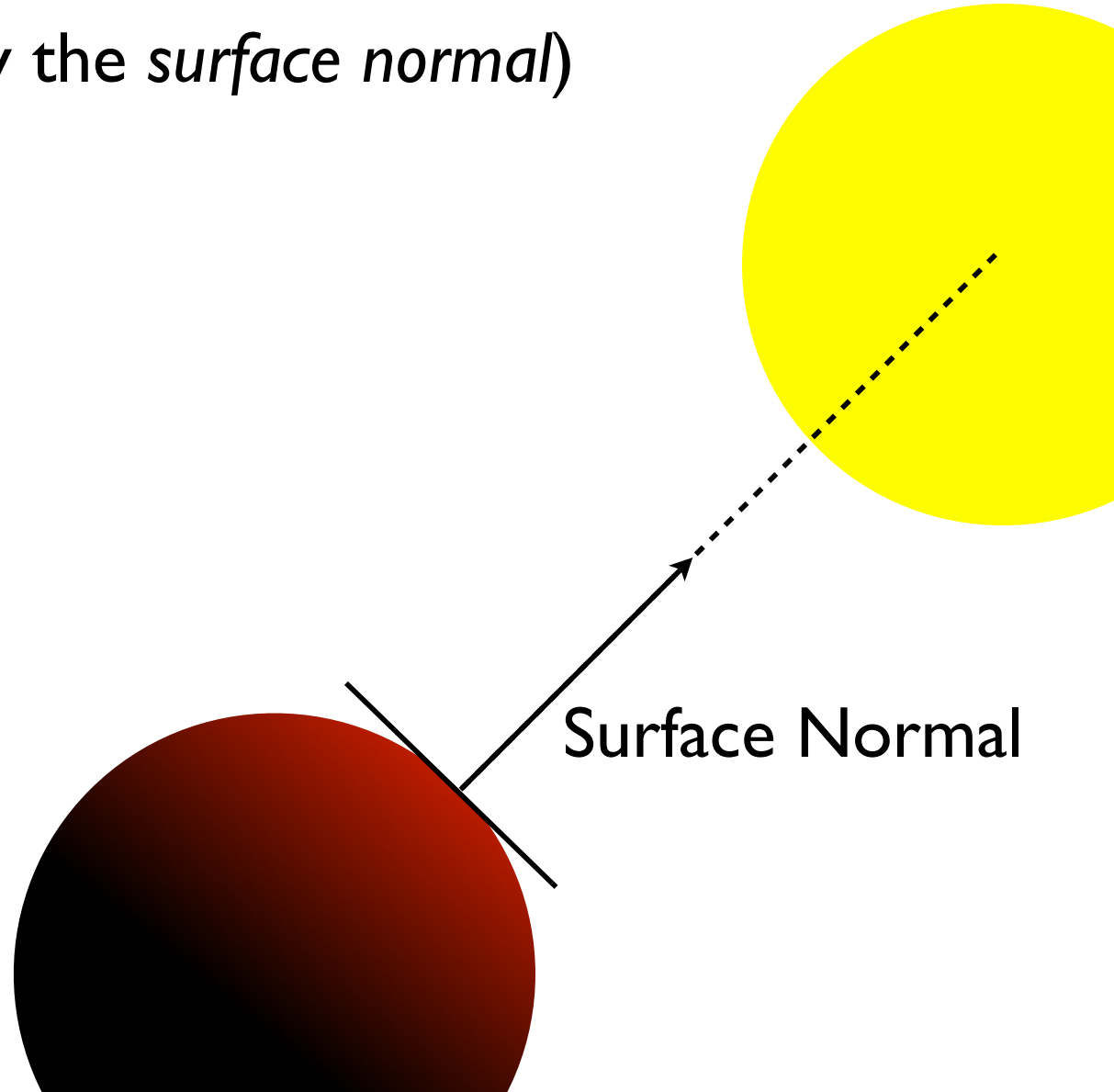
(as defined by the *surface normal*)





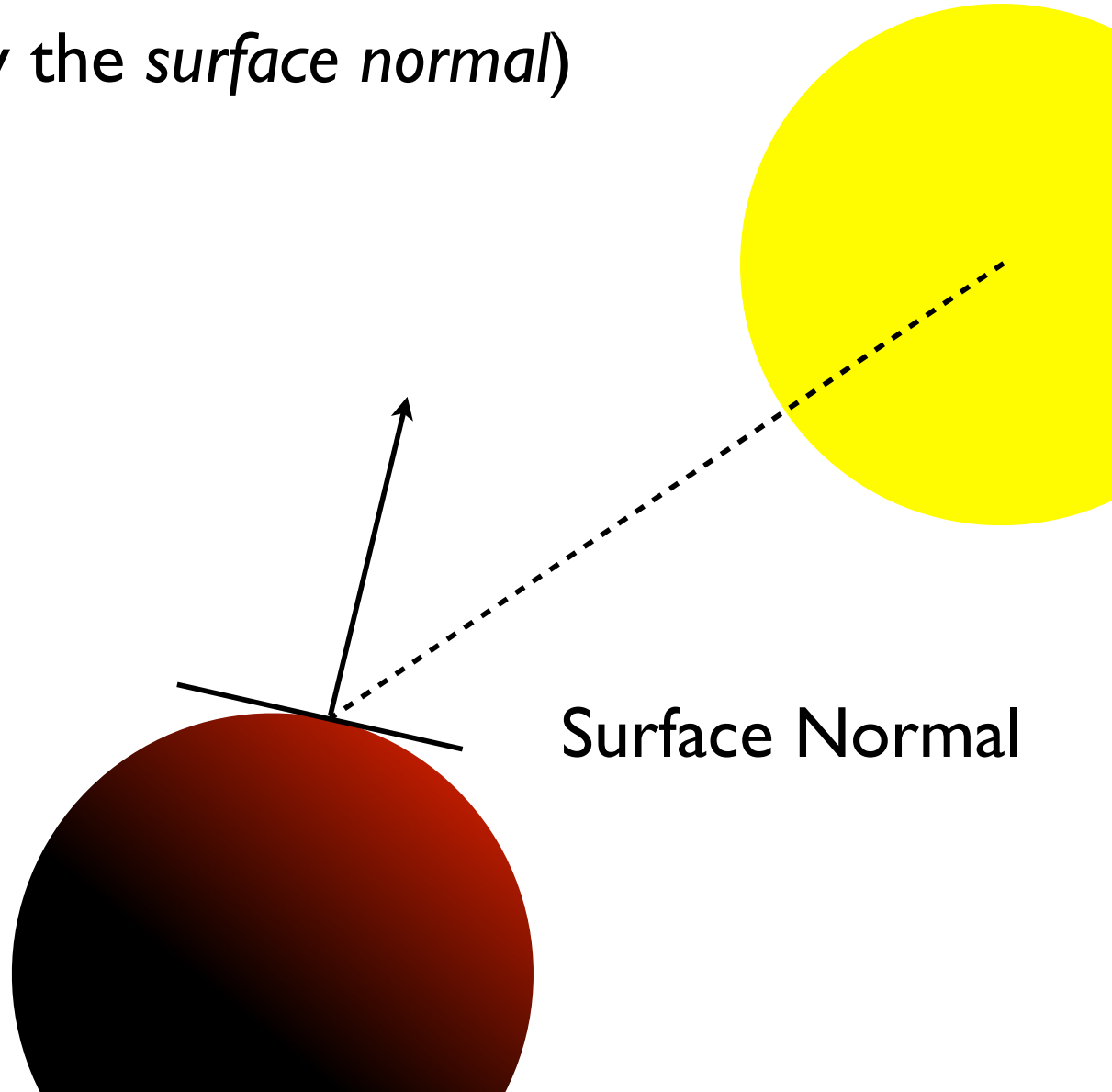
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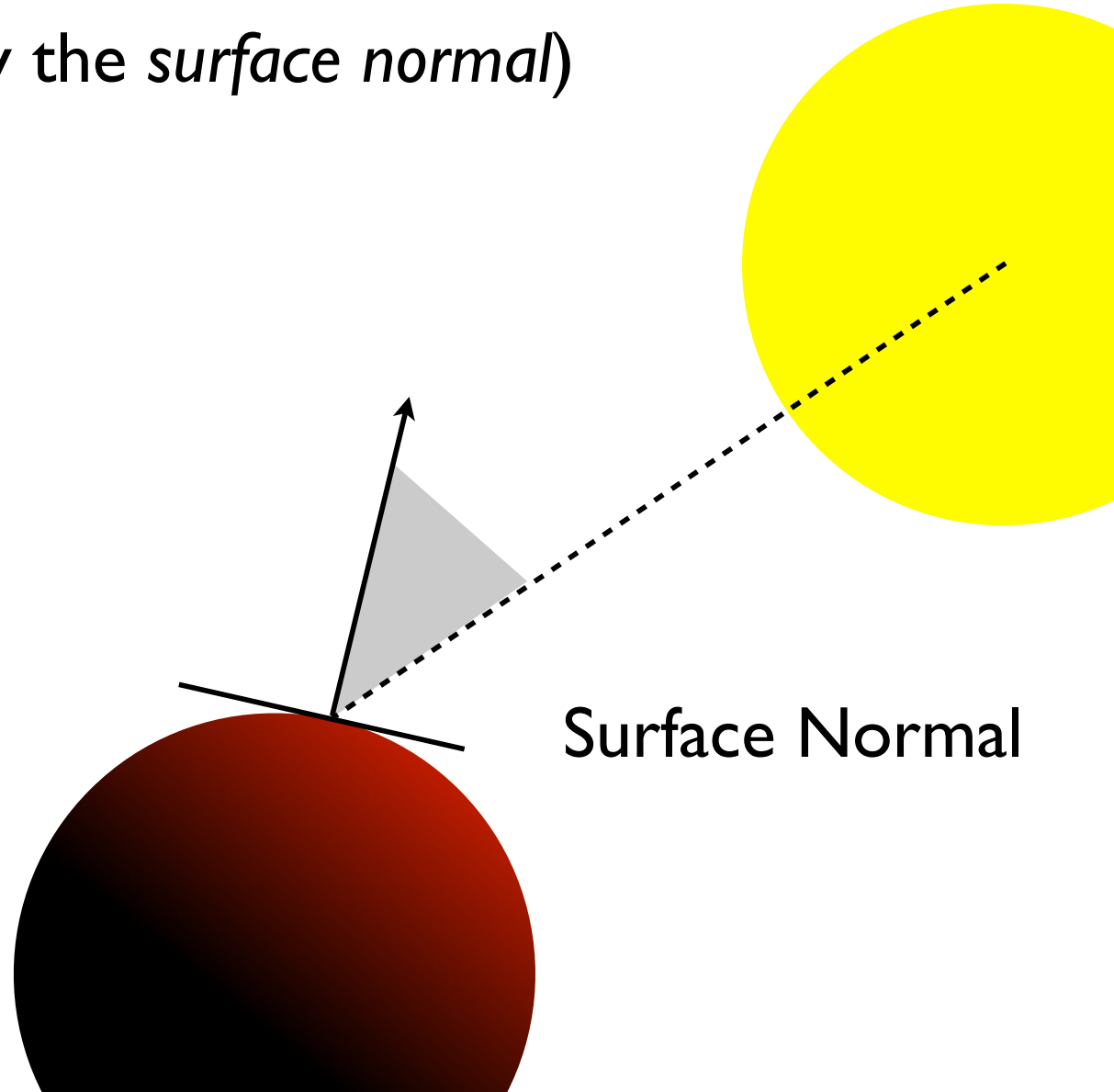
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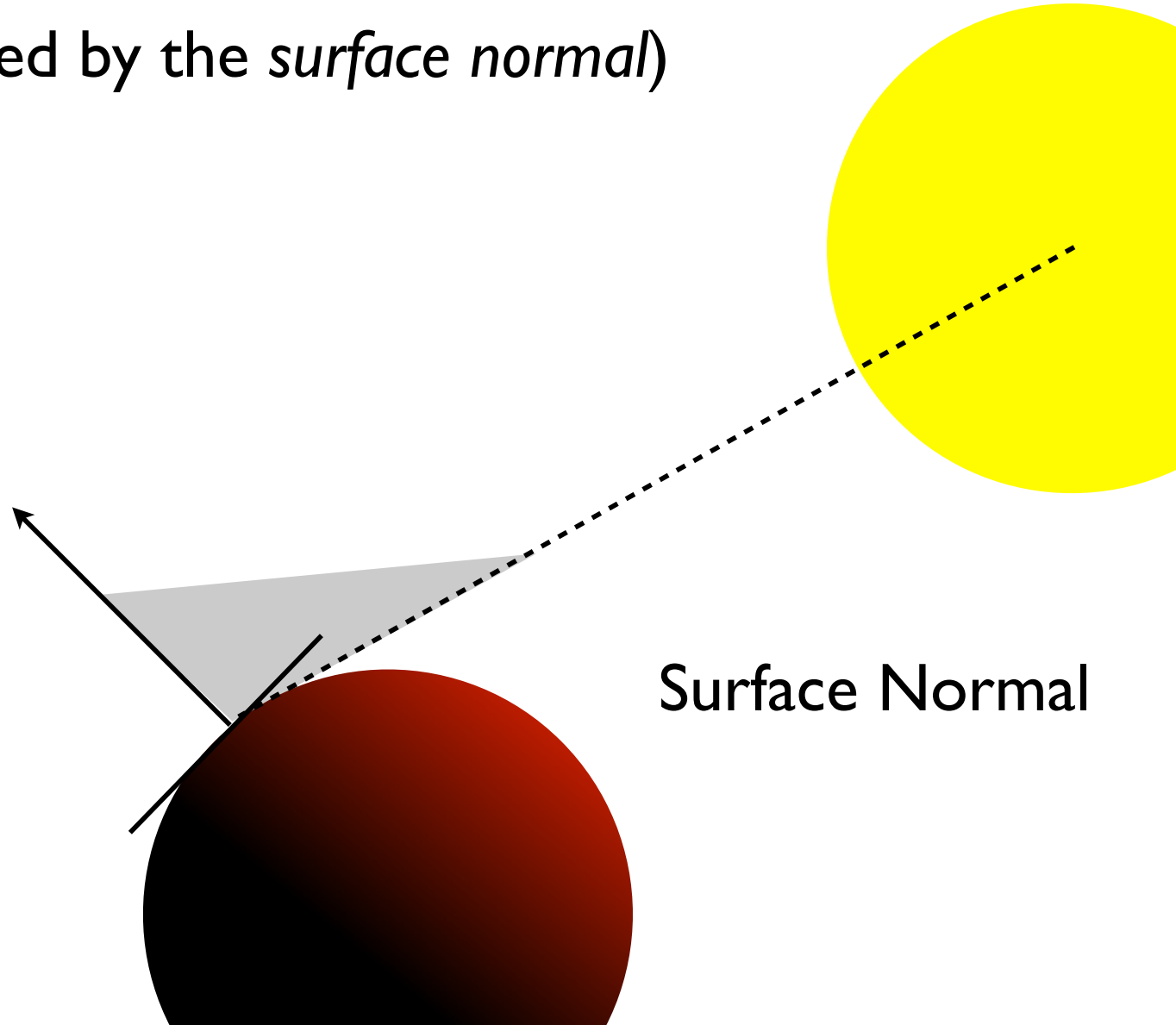
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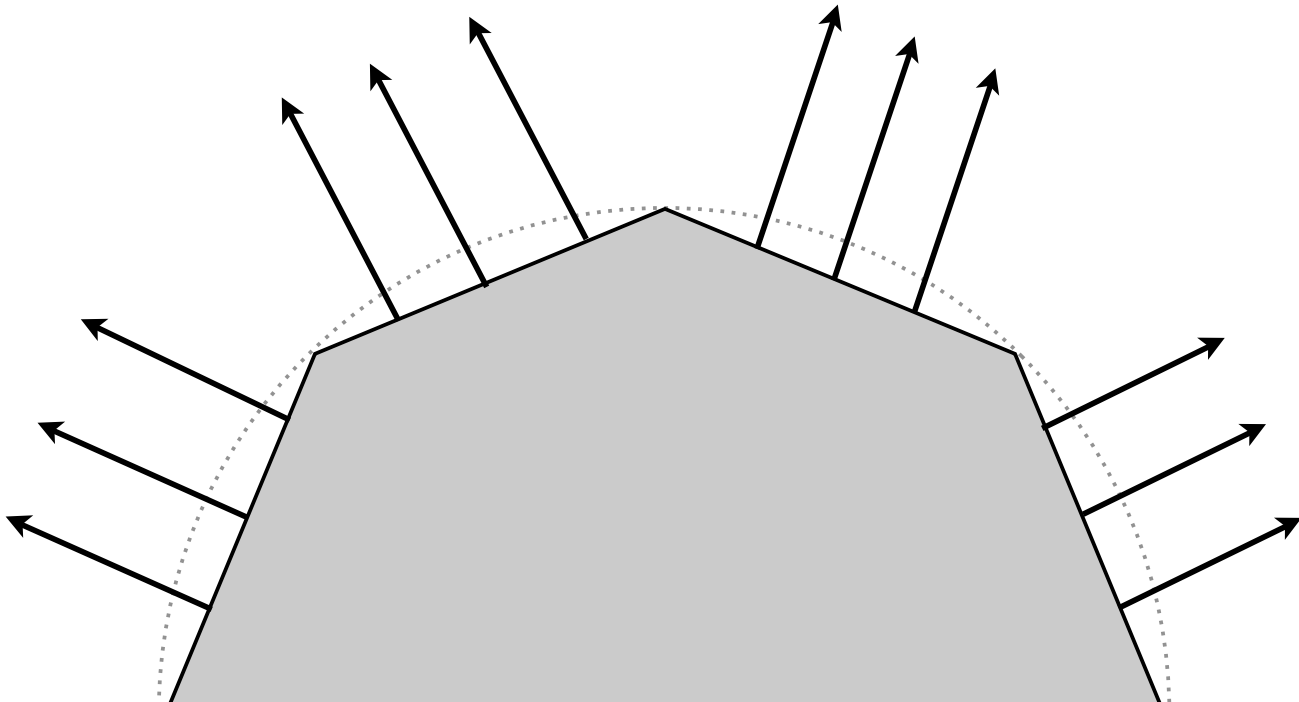


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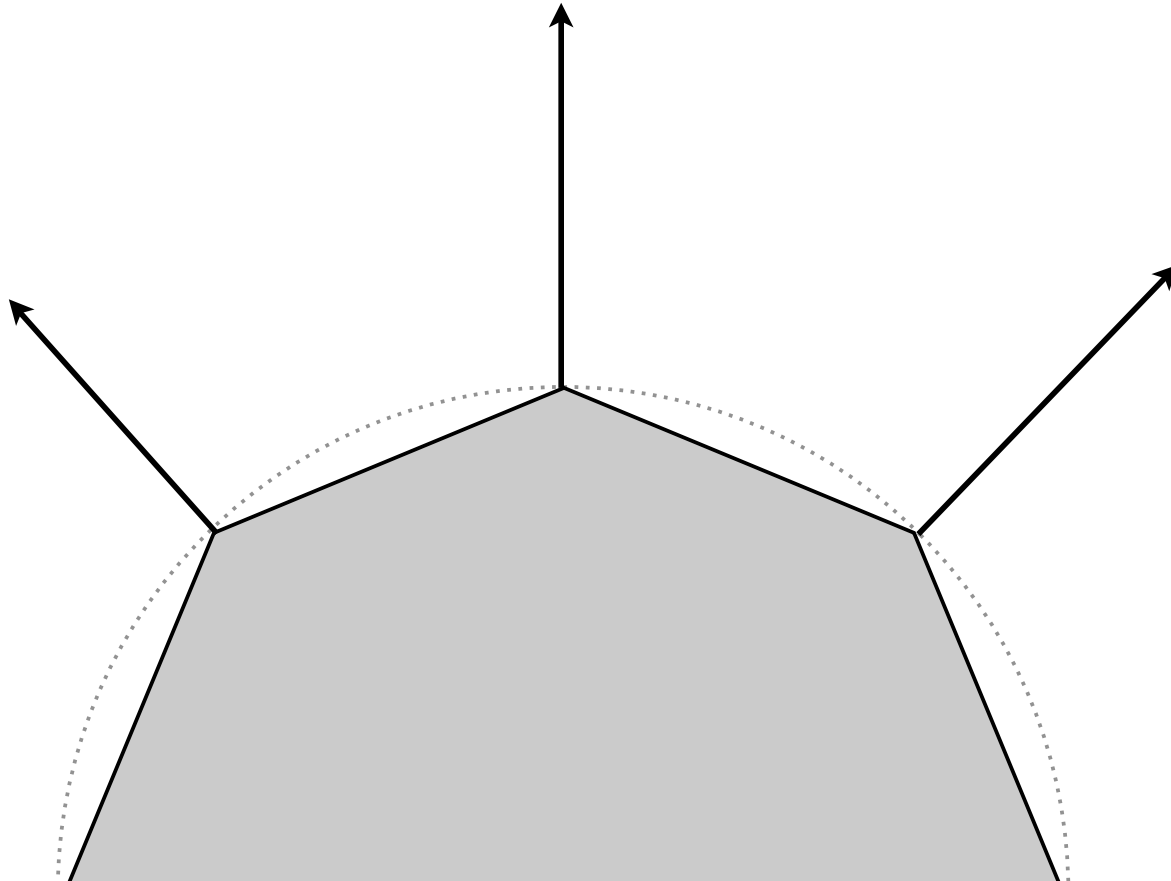
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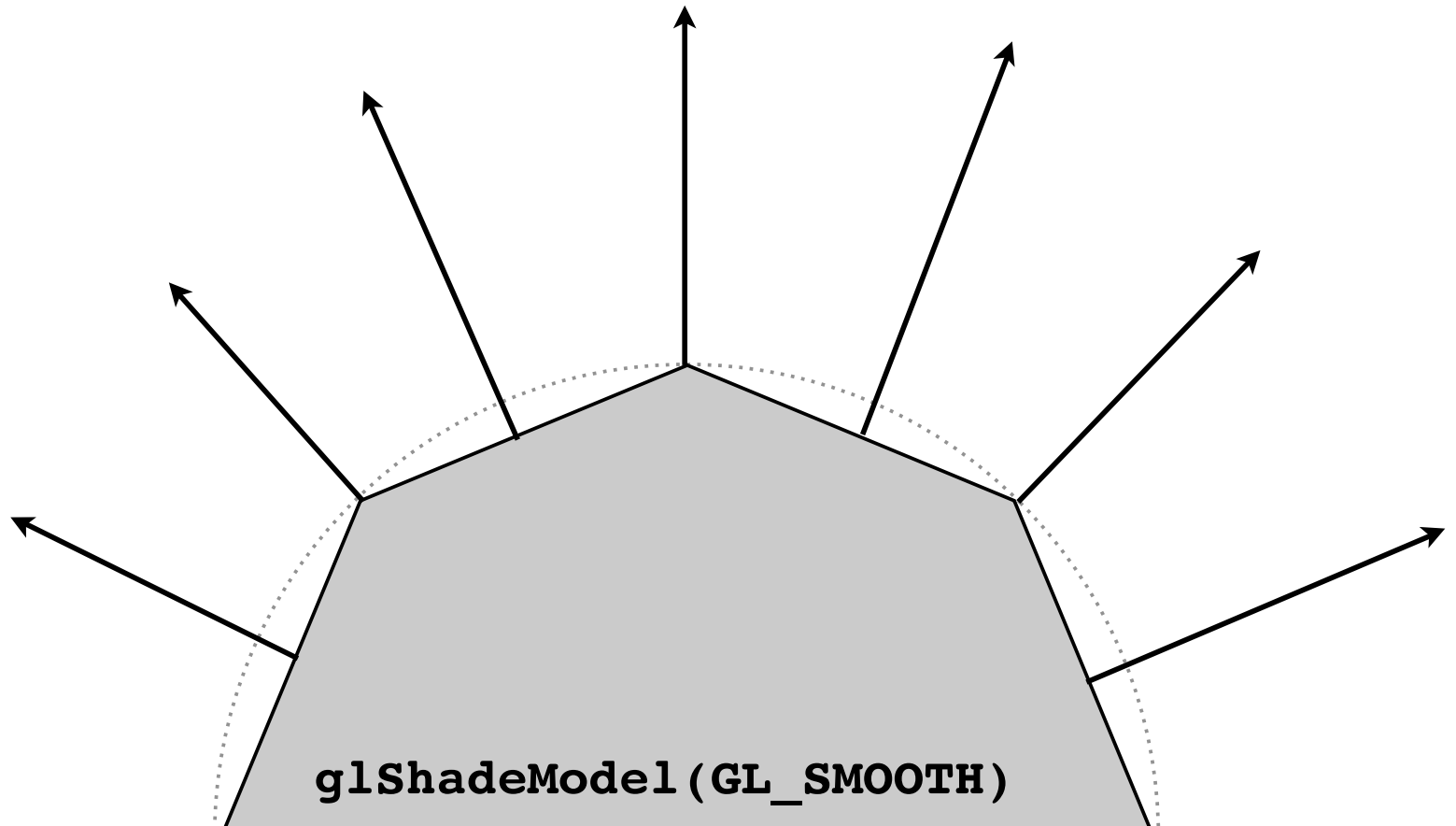
# Suppose Poly based Normals

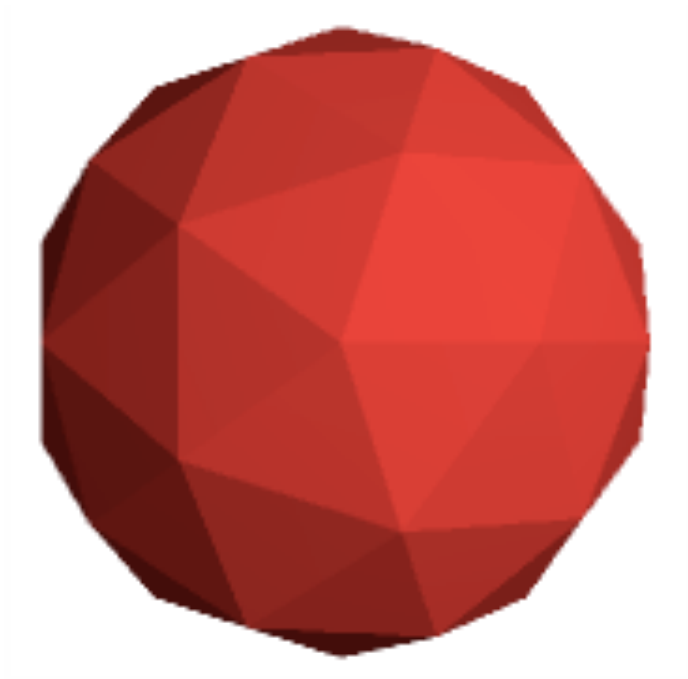


# Vertex based Normals



# Interpolated Surface Normals





**glShadeModel (GL\_FLAT)**



**glShadeModel (GL\_SMOOTH)**



# Texture Mapping