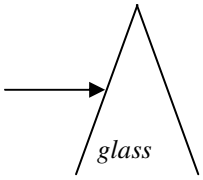
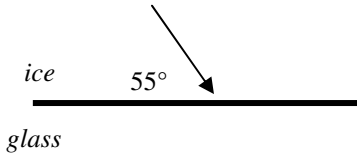
A-day: Due Thurs., Mar 13 (Assigned Tues., Mar 11)
B-day: Due Fri., Mar 14 (Assigned Wed., Mar 12)

2008 Light 6

1. Draw the path that the light will take as it passes into and thru the prism at the right.





2. Remembering where you take angles from, find the angle that the light will refract into the glass at the left.

3. A 3 cm tall object is 5.4 cm from a *convex mirror*. If it has a 4.2 cm focal length….
   A) Since it is a convex mirror, is the focal point positive or negative?
   B) Find the distance to the image.

   C) Is it a real or virtual image?
   D) Find the magnification of the mirror and the height of the image.

4. How can a light pipe be used to move light from a light source to another location or a different direction?

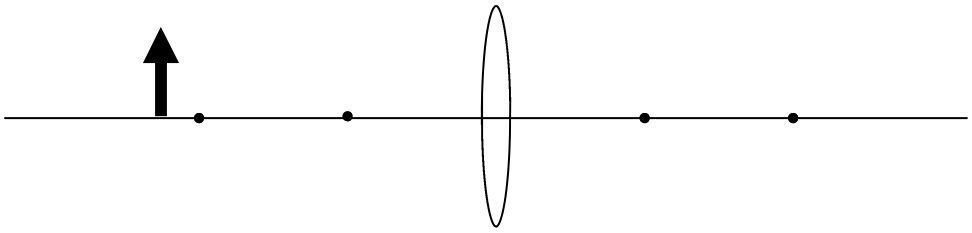
5. A. How can two polarizers be used to cancel out light?

   B. How does it work?

6. A. Which is more efficient: incandescent light or fluorescent light?
   B. Why?

7. On the following diagram:
   A. What kind of lens is it?
   B. Label f and C on both sides (mark +f and –f).
   C. Use a straight edge to draw the diagram.

_____ Lens



   D. Is the image real or virtual?
   E. Is the image magnified or reduced?
   F. The object is outside of C and the image is located where?

8. A. What happens to white light as it passes thru a prism?

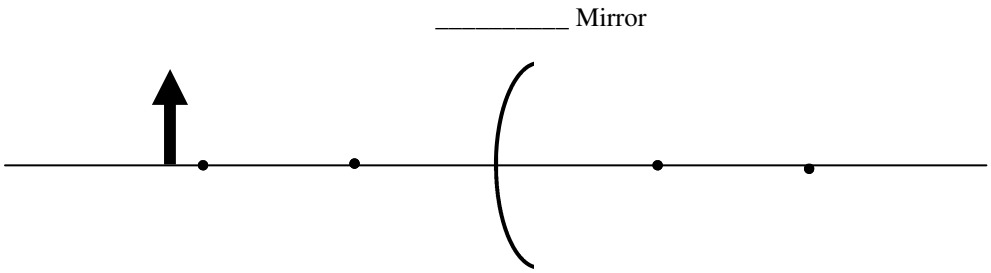
   B. What happens to laser light as it passes thru a prism?

   C. Why the difference?

9. If the radius of curvature of a CONCAVE lens is 10 cm? What is the focal length? (*Choose one of the following.)*

A. 10 cm	C. -5 cm	E. 20 cm
B. 5 cm	D. -10 cm	F. -20 cm

10. For the following diagram:
    A. Is the focal length positive or negative?
    B. Using a straight edge, draw the ray diagram.



   C. Is the image real or virtual?
   D. Is the image magnified or reduced?