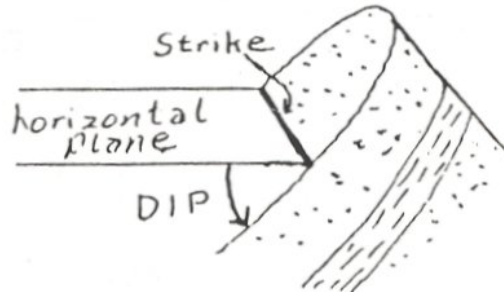
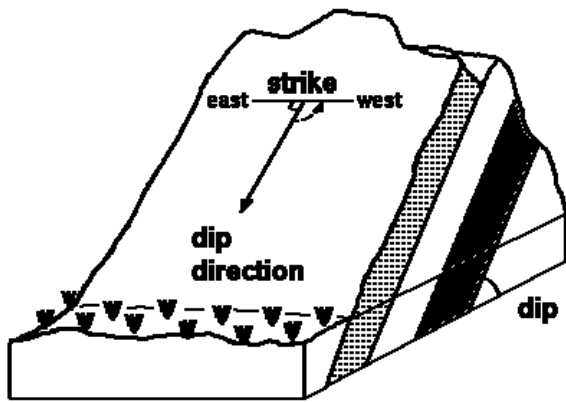


ES302 Introduction to Strike and Dip / In-Class Exercise (Updated Spring 2017)



Three “outcrop” stations are set up on the front lawn of NSB, along Jackson Street. The stations are comprised of planar boards that represent layered beds of sedimentary rock. The beds are of variable orientation at each outcrop locality (locality A, B, and C).

Task 1. In the space below, draw a relatively accurate, but not to scale, sketch map of the lawn model. Include location of NS Building, the sidewalk, and locations of points A, B and C. Orient positions to true north, use north arrow below.

Task 2. Using the brunton compass provided, measure the strike and dip of each bed. Your strike should be in azimuth, relative to the northern hemisphere, dip will be oriented perpendicular to strike. Fill in the appropriate spaces on the data table below.

Task 3. Also using the brunton compass, measure the azimuth bearings between each locality, as listed on the data table below.

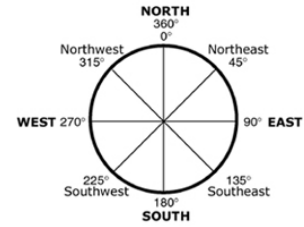
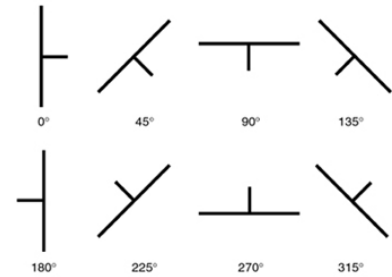
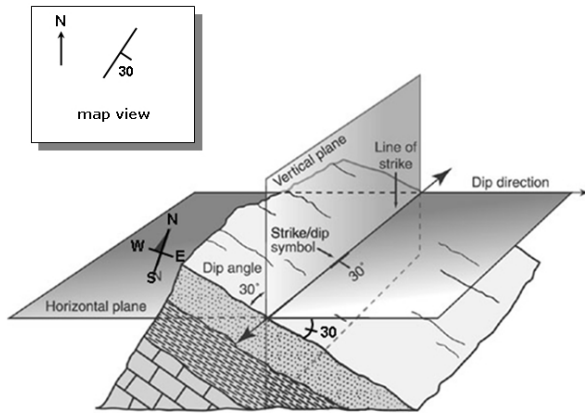
Task 4. Using the tape measures, measure the model (lawn) distance (ft) between each locality, as listed on the data table below.

Task 5. Assuming that the NSB lawn model represents the earth’s surface with a scale of 1:400 , calculate the actual ground distance between each point (km), fill in the data table below. Show all of your math work.


Outcrop	Strike	Dip	Line	Azimuth Bearing	Lawn Dist (ft)	Ground Dist (km)
A	_____	_____	A to B	_____	_____	_____
B	_____	_____	B to C	_____	_____	_____
C	_____	_____	A to C	_____	_____	_____


Task 6. On your sketch map below, using the standard strike/dip map symbols shown below, carefully draw the strike and dip symbol at each outcrop location, carefully measuring the strike orientation protractor and label dip angle.


**Example Structure Map Showing Strike and Dip**



**Example symbols**


 Strike 0  
 Dip 38 East


 Dip = 90 deg


 Dip = 0 deg

**SKETCH NSB Lawn MAP IN SPACE BELOW... (draw a north arrow in standard orientation)**