

Astronomy 162 – Winter Quarter 2006
Homework #4

Due in class Monday, February 27

Instructions

This handout is just a worksheet: homework answers must be turned in on the bubble sheets provided. You can pick up additional bubble sheets during class.

Use a #2 pencil only (no pens), and please fill in the following info:

1. Your full name, **last name** first, first name last, and remember to bubble in the letters.
2. Bubble in the 5-digit homework code, **11211**, on the form under "Identification Number" in columns A-E (lower left-hand corner of the form). Bubble in your answers under questions 1-5 in the fields provided on the form.

Please turn in your homework in person during class on Monday, February 27.

No late homework will be accepted.

This homework assignment consists of the 5 questions below. Each question has equal weight.

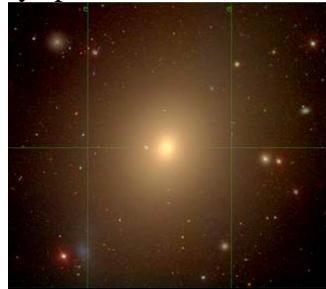
1. A distant galaxy measured by the Sloan Digital Sky Survey has a redshift of $z=0.25$. Assuming a Hubble Constant of $H_0=70$ km/sec/Mpc and speed of light $c=300,000$ km/sec, what is the distance to this galaxy (pick the closest answer):
 - a) 17,100 Mpc
 - b) 1070 Mpc
 - c) 10.7 Mpc
 - d) 1.07 Mpc
2. Which of the following galaxies is an ordinary spiral?



(a)



(b)



(c)

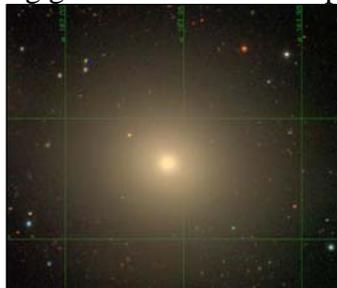


(d)

3. Which of the following galaxies is a Barred Spiral?



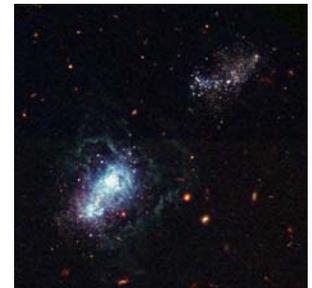
(a)



(b)



(c)



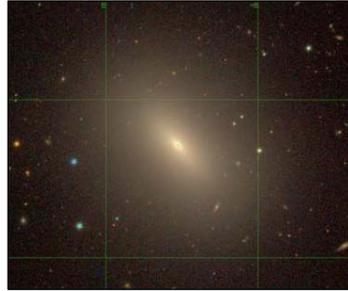
(d)

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4. Which of the following galaxies is an Elliptical



(a)



(b)

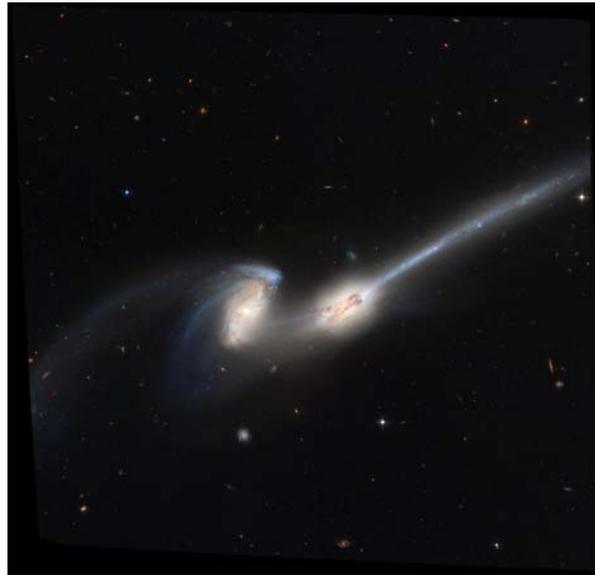


(c)



(d)

5. Interacting Galaxies are often given fanciful names. Using the web to assist your research, what is the name given to this striking set of interacting galaxies?



- a) The Antennae
- b) Stephan's Quintet
- c) The Mice
- d) The Whirlpool