

UNM Physics 262, 25 Sep 2006
Midterm Exam 1: Optics

Name and/or CPS number: _____

Show all your work for full credit. Remember that quantities have units and vectors have components (or magnitude and direction). **ASK** if anything seems unclear.

**CALCULATORS AND CELL PHONES ARE PROHIBITED.
USE OF THESE WILL RESULT IN A ZERO FOR THE EXAM.**

Keep any factors of π , e , $\sqrt{2}$, etc. in your answers.

You may use a single 8.5" \times 11" paper containing notes you have prepared ahead of time to assist you.

Apportion your time sensibly. Spend about 10–12 minutes per problem.

Please put a box around your final answers.

Useful constants:

$$c = 3 \times 10^8 \text{ m/s}$$

Problem 1: _____

Problem 2: _____

Problem 3: _____

Problem 4: _____