

AP PHYSICS C FREE RESPONSE PROBLEMS: 1973-PRESENT

The mechanics and electromagnetism problems are divided into categories. You should be able to solve each problem in a category after completing the necessary course work. Note that some of the categories are heavily emphasized. In addition, portions of some of the problems can be completed before all of the material has been presented in class for a category.

Mechanics

1) Kinematics, Newton's Laws, and Gravitation

2007 #1, 2005 #2, 2001 #2, 1998 #3, 1996 #2, 1988 #1, 1987 #1, 1984 #1, 1983 #1, 1981 #1, 1977 #3, 1973 #2,3

2) Energy and Momentum

2009 #1,3 2008 #3, 2007 #2,3, 2006 #1,2, 2004 #1, 2003 #1, 2002 #1,3, 2001 #1, 1999 #1,2, 1998 #1, 1997 #1,2, 1995 #1,2, 1994 #1,3, 1993 #1, 1992 #1, 1991 #1,3, 1988 #2, 1987 #2, 1986 #1, 1985 #1,2, 1984 #2, 1982 #1,2, 1981 #2, 1980 #2, 1979 #1,2, 1978 #1, 1976 #3, 1973 #1

3) Rotations

2008 #2, 2006 #3, 2005 #3, 2004 #2,3, 2003 #3, 2002 #2, 2001 #3, 2000 #3, 1999 #3, 1998 #2, 1997 #3, 1996 #3, 1995 #3, 1994 #2, 1993 #3, 1992 #2,3, 1991 #2, 1990 #2, 1988 #3, 1987 #3, 1986 #2, 1985 #3, 1983 #2,3, 1982 #3, 1981 #3, 1980 #3, 1979 #3, 1978 #2,3, 1977 #2, 1976 #1,2, 1975 #2, 1974 #1,2

4) Oscillations and Air Resistance

2009 #2 2008 #1, 2005 #1, 2003 #2, 2000 #1,2, 1996 #1, 1993 #2, 1990 #1, 1986 #3, 1984 #3, 1980 #1, 1977 #1, 1975 #1, 1974 #3

Electromagnetism

1) Coulomb's Law, Electric Fields, Gauss' Law, Potential, and Capacitance

2009 #1 2008 #1, 2007 #2, 2006 #1, 2005 #1, 2004 #1, 2003 #1, 2002 #1, 2001 #1, 2000 #2, 1999 #1,3, 1998 #1, 1997 #2, 1996 #1, 1995 #1,2, 1994 #1, 1992 #1, 1991 #1, 1990 #1, 1989 #1, 1988 #1, 1986 #1, 1985 #1, 1984 #2, 1983 #1, 1982 #1, 1981 #1, 1980 #1,2, 1979 #1, 1978 #1,3, 1977 #1, 1976 #1, 1975 #1, 1974 #1,2, 1973 #1

2) Current and Circuits

2008 #2, 2007 #1, 2006 #2, 2004 #2, 2003 #2, 2002 #2, 2001 #2, 1997 #1, 1996 #2, 1992 #2, 1989 #3, 1988 #2, 1986 #2, 1985 #2, 1983 #2, 1977 #2, 1975 #2

3) Ampere's Law and Applications

2009 #2 2005 #3, 2000 #3, 1998 #3, 1994 #2,3, 1993 #1,3, 1990 #2, 1984 #1, 1983 #3, 1981 #2, 1979 #2,3, 1976 #3, 1973 #2

4) Faraday's Law and Applications

2009 #3 2008 #3, 2007 #3, 2006 #3, 2005 #2, 2004 #3, 2003 #3, 2002 #3, 2001 #3, 2000 #3, 1999 #2, 1998 #2, 1997 #3, 1996 #3, 1995 #3, 1993 #2, 1992 #3, 1991 #2,3, 1990 #3, 1989 #2, 1988 #3, 1987 #2,3, 1986 #3, 1985 #3, 1984 #3, 1982 #2,3, 1981 #3, 1980 #3, 1978 #2, 1977 #3, 1976 #2, 1975 #3, 1974 #3, 1973 #3