Mini AP Physics Math Quiz

AP Physics students are expected to know basic algebra as well as they knew multiplication and division in junior high. Take the following quiz to see if you have what it takes. Problems 4 and 5 are usually covered at the end of the year in Algebra II. (See answers inside)

1. Solve for x and y given the following:

$5x + 2y = 22$ $3x + 6y = 39.6$

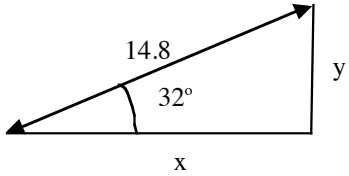
2. Solve for x given the following:

$5x^2 + 1.5x = 12$

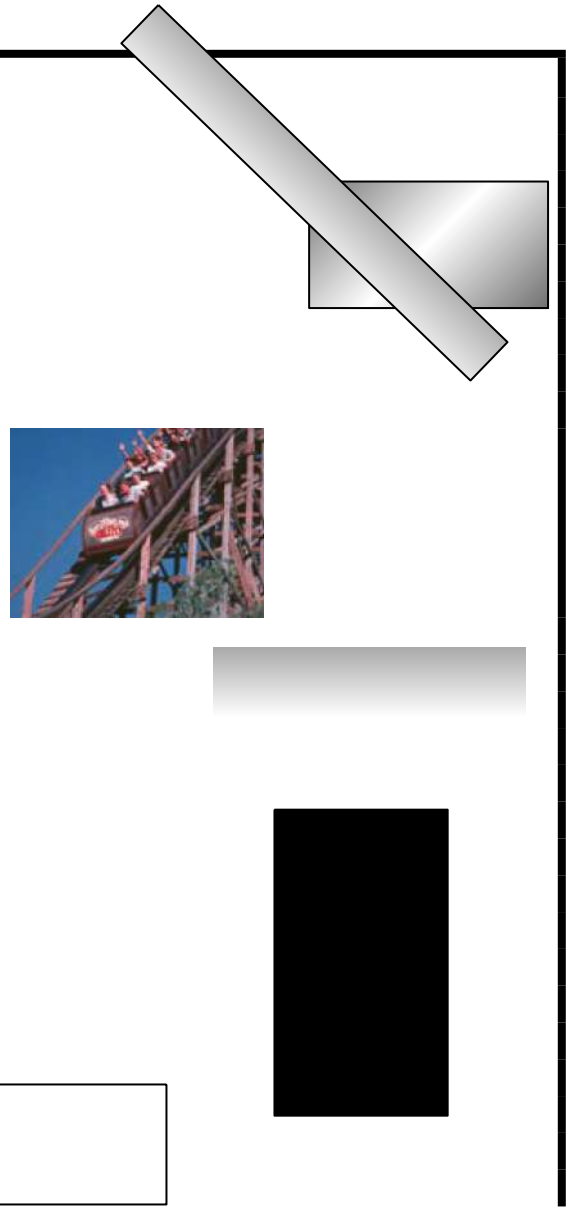
3. Solve the following for I:

$$\frac{mv^2}{2} + \frac{Iv^2}{2r^2} = \frac{3mgv^2}{4g}$$

4. Solve for the lengths of sides x and y.



5. On the triangle above, W
the opposite side? Which is



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Questions and Answers about

AP Physics

at S High School

Q: Will I get hammered in AP Physics?

A: Only if you want to!

Q: What are the admission requirements for AP Physics?

A: Students must be enrolled in, or have completed trigonometry, have a B- or better in Chemistry or an A- or better in Chem-com.

Q: What are the benefits of taking AP Physics?

A: Students taking AP classes receive an extra grade point for their GPA. If they perform well on the AP test they may receive college credit. There also are scholarships available for students performing well on the physics and calculus AP tests.

Q: Does AP Physics go on any field trips?

A: AP Physics students go to the Exploratorium in San Francisco and Great America on Physics Day.

Q: Who takes AP Physics?

A: AP Physics consists of about 75% juniors and 25% seniors. They are students who intend to major in science and/or want to challenge themselves with college level work.

Q: How difficult is AP Physics?

A: Although AP Physics is one of the most difficult classes on campus; it is structured so that students can usually achieve the same grade they received in Chemistry. Usually almost half the class receives an A- or better.

Q: What can I expect to be doing in class?

A: About 40% of class time is devoted to lab activity. Los Gatos High School has an advanced physics laboratory that rivals many college labs. Labs range from exploring motion graphs using radar-gun like detectors, to developing conservation principles by measuring the speed of a Nerf gun dart. Other days are devoted to introducing new concepts in demonstration sessions, learning problem solving in lectures, and testing your skills with quizzes and examinations.

Q: How well can I expect to do on the AP Physics Exam?

A: LGHS students take the AP Physics Mechanics C test after their first year in physics. Nationally, most students taking this test are seniors who have had two years of physics. Despite this disadvantage, LGHS students achieve well above the national average. In 2010, 86 out of the 102 LGHS students taking the test received a passing score of 3 for an 84% pass rate. This is above the national pass rate of 70%. 72% of the

passing scores were 4s and 5s. Among juniors who took the test in 2010, LGHS students really stood out. Out of the 679 students in California who could claim they passed the AP Physics Mechanics C test on their college applications, 10.5% were from LGHS. Nationally, LGHS students represented 2.2% of the juniors passing this test.

Q: Where can I find out more?

A: Contact the AP Physics teacher, Mr. Burns in room 102 or by email at dburns@lgsuhsd.org. Talk to your guidance counselor and students who are currently in AP Physics.
See the College Board website at:
http://apcentral.collegeboard.com/

Answers to Mini Math Quiz:

1. x = 2.2 y = 5.5

2. x = 1.41 or -1.71

3. $I = \frac{1}{2}mr^2$

4. x = 12.55 y = 7.84

5. y, x