

Due Friday, February 13: Solve the percentage word problems below. Do you work on a separate sheet of paper and show all your calculations.

1. In January 2009, 694 UMass Boston students attempted to complete the Writing Proficiency Requirement (WPR) by either taking the sit-down exam or by submitting a portfolio. The January 2009 pass rate for the WPR was 71%. How many students attempted but did not pass the WPR in January?
2. According to the U.S. Census Bureau, the US population in 2000 was 281,421,906. If 50.9% of the population was female, how many were male? (Actual number of males, not the percent.)
3. U.S. Census Bureau estimates that the U.S. population increased by 3.3% between 2000 and 2003. What was the estimated population of the United States in 2003?
4. Total UMass Boston enrollment for fall 2004, undergraduates plus graduate students, was 11,682. How many graduate students were enrolled if undergraduates made up 76% of the total?
5. In fall 2005 there were 565 new freshmen enrolled at UMass Boston or 32% of all new students. The remainder were transfer students. How many new students were transfers from other colleges?
6. The report from Enrolment Services for fall 2005 states that UMass Boston welcomed 2100 new students to campus of which, 782 are freshmen. What percentage of new students are freshmen?

The chart below shows the major oil refineries in Louisiana that were shut because of Hurricane Katrina as well as their daily capacity in thousands of barrels of oil. According to the *New York Times* August 30, 2005, report 13% of that capacity was idled by Katrina.”

Refinery	Location	Daily Capacity in Thousands of Barrels
Exxon Mobile Refining and Supply	Baton Rouge, LA	493.5
Chevron, USA	Pascagoula, LA	325.0
ConocoPhillips	Belle Chasse, LA	247.0
Marathon Ashland Petroleum	Garyville, LA	245.0
Motiva Enterprises	Convent, LA	235.0
Motiva Enterprises	Norco, LA	226.5
Chalmette Refining	Chalmette, LA	187.2
Valero St. Charles Refinery	Norco, LA	185.0
Murphy Oil USA	Meraux, LA	120.0
All refineries in LA	Total	2264.2

Question: How many fewer barrels of refined oil reached American consumers in 2005 as a result of Katrina? Show your calculations.

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Answer Questions 8 and 9 in complete sentences.

1. Why is it necessary to round answers to the nearest whole number in questions 1-6?
2. In question 7, why might rounding your answer to the nearest whole number give an inaccurate result?

