

Mathematics 141
Dr. Orlik

EXAM 1

Problem 1. A plane has 200 seats. On a trip there were 46 more seats occupied than empty.

a) How many seats were occupied?

b) What percent of the seats was empty?

Problem 2. Wisconsin income tax is 6.67%. What will be the new rate after a 10% cut?

Problem 3. A library survey reported that 60% of the visitors read travel books, 50% read history books, and 25% read both.

a) What percent read travel books but not history books?

b) What percent read neither?

c) What percent of the travel book readers read history books?

Problem 6. Find $\text{GCF}(3015, 11430) =$

Problem 7. a) Find the prime factorizations of 320, 440, 480.

b) Find their GCF.

c) Find their LCM.

Problem 8. What are the postages you cannot make with an unlimited supply of 5 and 8 cent stamps?

Problem 9. A customer orders 10 gallons of 45% solution, but the wholesaler has only 10% and 60% solutions in storage. How much of each should be mixed to fill the order?

Problem 10. A frog, a turtle, and an alligator live in a pond. The frog surfaces every 45 seconds, the turtle every 65 seconds, and the alligator every 96 seconds. If they surface together at noon, what time do they surface together next?

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