

MRC use: Time In _____ Out _____

Instructor use only: Notes and Book OK, Calculator/Phone/Computer OK, One Part Test, Time Limit 80 min., Last Day:

Name:

Date:

Math 25 Midterm One

Work for up to 80 minutes.

Calculators **are** allowed. Your Math 25 notes and the Math 25 Packet **are** allowed.
Looking at the Math25.net website online **is** allowed on this midterm only.

Reduce fraction answers. No need to change improper fraction answers to mixed numerals.

Show numbered step-by-step answers!

Review Problems (Do 5 of 12)

1. How many factors does 24 have?
2. Find the prime factorization of 84.
3. Solve $4 \times (5 + 15 \times 5) + 6 - 3 + 81 \div 3^3 \times 2^4$
4. Find $^{16}/_{25} \div ^4/_5$
5. Find the sum of $^1/_3$, $^2/_4$, and $^5/_6$ using common denominators.
6. A number minus $^1/_30$ equals $^1/_5$. What is the number?
7. Brand A costs \$19.52 for 13 ounces. Brand B costs \$16.51 for 10 ounces. What is the price per ounce for each? Which is the better buy?
8. Solve: $^{25}/_6 = ^n/_20$
9. 183.96 is 21% of what?
10. Write 325% in decimal format.
11. Write 12.9375 in percent format.
12. Write the fraction $^{10}/_8$ in percent format.

Math 25 Problems (Do all 15)

1. One serving of bagel has 0.5 grams of fat, 44 grams of carbohydrates (including 4 from sugar), and 8 grams of protein. Change to calories these amounts of fat, carbohydrate, sugar, and protein.
2. Continuing the previous problem, what percentage of the food's calories come from sugar?
3. Frank is a 67-year-old very active man who weighs 106 pounds and is 5 feet 5 inches tall. What is his estimated BMR?

4. Continuing the previous problem, what is his estimated DCI?
5. Your friend is a 69-year-old minimally active woman who weighs 119 pounds and is 5 feet 3 inches tall. What is her estimated BMR?
6. Continuing the previous problem, what is her estimated DCI?
7. Continuing the previous problem, that same friend swims for 1 hour and 39 minutes. Swimming burns 0.07 calories per pound per minute. How many calories does your friend burn? To how many 50-calorie *York Peppermint Pattie* mini-size candies is this equivalent?
8. Continuing the previous problem, what is that friend's maximum safe heart rate, minimum aerobic exercise heart rate, and maximum aerobic exercise heart rate?
9. A recipe that makes 13 servings requires 10 pounds of Mogu Pumpkin. Mogu Pumpkin have a yield percent of 66%. How many pounds of Mogu Pumpkin should you purchase if you are scaling up the recipe to make 284 servings?
10. Continuing the previous problem, if Mogu Pumpkin cost \$0.60 per pound, what will that ingredient cost?
11. One gallon of whole milk weighs 8.6 pounds. What is the weight of 13.5 cups of whole milk?
12. Express 5.2 cups as 5 cups and some tablespoons.
13. Express 19 teaspoons as 6 tablespoons and some teaspoons.
14. Find the mean of these six numbers: 22, 153, 69, 8, 91, 11.
15. Continuing the previous problem, find the median of those six numbers.

Answers for Random Problems