**Standard 3 Review**  Name: Date: Period:

1. Express each value as a percent:
2. .439 b) .0036 c) 1.85 d) $\frac{1}{8}$
3. Express each value as a decimal:
4. 16.7% b) 9% c) 200%
5. 35 % of 946 is what number?
6. What percent of 179 is 27?
7. 14% of what number is 32?
8. A piece of furniture was reduced from $975 to $750. Find the approximate percent of reduction in the price.
9. A real estate agent received a 3% commission on the sale of a home. If his commission was $8,350, approximately how much did the home sell for?
10. Find the **sales tax and total cost** of an item that costs $79 if the tax rate is 6.5%.

Convert the following using dimensional analysis.

1. 100 yards to feet
2. 74 inches to feet
3. 2.45 miles to feet
4. 8,500 mm =  m
5. 5.6 hL =  L
6. 230 meters =  feet
7. 150 kilometers =  miles
8. The Willis (Sears) Tower in Chicago stands 1,450 feet tall. The CN Tower in Canada is 533 m tall. Which one is taller? Support your choice with mathematics.
9. The Hennessey Venom GT (the world’s fastest car)has reach the speed of 435 km per hour. How fast is that in miles per hour?

Show all work, even for multiple choice!

1. In your job as a cashier, a customer gives you a $20 bill to pay for a can of coffee that costs $3.84. How much change should you give back?

A) $15.26
B) $16.16
C) $16.26
D) $16.84
E) $17.16

1. A customer in the music shop where you work purchases 3 cassette tapes. One costs $8.99, one costs $7.99, and one is on sale for $3.99. Excluding taxes, how much does the customer owe?
2. Calculate the missing values to complete the chart.

|  |  |  |  |
| --- | --- | --- | --- |
| UNIT | NO. OF UNITS | VALUE | TOTAL VALUE |
| crate of items | \_\_\_\_ crates | 12 items per crate | 36 items |
| purchased item | 5 items | $\_\_\_\_ per item | $6.25 |
| distance (mile) | 7 mi | 2 hrs per mile | \_\_\_\_ hrs |

1. Calculate the missing values so as to complete the chart.

|  |  |  |
| --- | --- | --- |
| FRACTION | DECIMAL | PERCENT |
| ½ | \_\_\_\_ | \_\_\_\_ |
| \_\_\_\_ | 0.85 | \_\_\_\_ |
| \_\_\_\_ | \_\_\_\_ | 40% |

1. In the hospital where you work, one of your duties is to take pulse counts. One patient has a pulse count of 21 beats in 15 seconds. At this rate, what should this patient's pulse count be for 60 seconds?

A) 84
B) 315
C) 126
D) 42
E) 105

1. A customer purchased clothing totaling $54.00 from the clothing store you work for. The state sales tax rate is 5%. How much tax should you charge the customer for this purchase?
2. The discount store where you work is selling a video game for 15% off the regular price of $21.00. You have to change the price tags for the sale. How much should you take off from the regular price?

A) $4.15
B) $1.50
C) $0.15
D) $3.15
E) $6.00

1. Quick Call charges 18¢ per minute for long distance calls. Econo Phone totals your phone usage each month and rounds the number of minutes to the nearest 15 minutes. It then charges $7.90 per hour of phone usage, dividing this into 15-minute segments if you used less than a full hour. If your office makes 5 hours 3 minutes worth of calls this month using the company with the lower price, how much will these calls cost?

A) $39.50
B) $41.48
C) $41.87
D) $54.00
E) $54.54

1. You are the new maintenance person for the local school and need to calculate how much wax will be required for the cafeteria floor based on its square footage. The cafeteria is 120 feet by 45 feet. What is the square footage you should use to figure the amount of wax needed for the cafeteria floor?
2. As a teacher's aide, you must figure percentage scores on student tests. If a student has 72 points out of 87 possible points, what percent of the total points possible did this student obtain?
3. You are preparing to tile the floor of a rectangular room that is 15½ feet by 18½ feet in size. The tiles you plan to use are squares, measure 12 inches on each side, and are sold in boxes that contain enough tiles to cover 25 square feet. How many boxes of tiles should you order to complete the job?

A) 11
B) 12
C) 34
D) 59
E) 287

1. As a cosmetologist, you must schedule you own appointments, so you need to know how long one haircut takes. Today you gave 7 haircuts between 1:45 and 4:15 and had no breaks. Approximately how long did it take you to give each haircut?
2. In your job at a company that makes bowling balls, you are doing a quick check of how much plastic resin has been used this week by the machine that molds the balls. Each ball is a sphere with a radius of 4 inches (the finger holes are drilled out after the ball has been molded). Production records show that 1,200 balls were made this week. Ignoring waste, about how many cubic **feet** of resin were used in the machine this week?

A) 46
B) 186
C) 268
D) 2,233
E) 321,536