



Workout 2

1. _____ years The mean of the ages of 20 students is 16.3 years. If three of them are 18 years old, what is the mean of the ages of the remaining 17 students?

2. _____ hours Mr. Ward is paid \$9.50 per hour for 40 hours of work each week. For each hour over 40 hours, he is paid \$14.25 per hour. His wages for a given week were \$494. How many hours over 40 hours did Mr. Ward work that week?

3. _____ mph John takes one step every second, and each step is 33 inches long. There are 5280 feet in 1 mile. How fast, in miles per hour, does John walk? Express your answer as a decimal to the nearest hundredth.

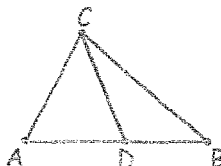
4. \$ _____



Phil purchases a book. After receiving a 20% discount off of the listed price of the book, a tax of 7.5% is added. His final bill comes to \$30.96. What was the listed price of the book?

5. _____ hours On a 3 hour, 30 minute entrance test for a private high school, there are 150 questions. There are 60 math questions and 90 English questions. Twice as much time is given for each math question as is given for each English question. How much time, in hours, is given for the 60 math questions?

6. _____ sq units Triangle ABC has an area of 175 square units. Point D lies on side AB such that $AD:DB = 4:3$. What is the area, in square units, of triangle ACD?



7. _____ The mean of three numbers is 70. When the smallest of the three numbers is replaced by 75, the mean is increased by five. What was the number that was replaced by 75?

8. _____ % TV sets are manufactured so that their length-to-width ratio is a constant. Their sizes represent the length of the diagonal of the screen. By what percent is the viewing area increased if you buy a 42-inch TV rather than a 37-inch TV? Express your answer to the nearest tenth.

9. _____ units Triangle ABC has sides AC, BC and AB measuring 18, 24 and 30 units, respectively. If D is the midpoint of segment AB, what is the length of segment CD?

10. _____ ways In how many different ways can 10 be written as a sum using only the numbers 1, 3 and 5? Note that $3 + 3 + 3 + 1$ and $1 + 3 + 3 + 3$ are two different ways that should be included.