

**One-half point per answer**

Let a, b, c, and d represent positive numbers. Label each of the following as T (true), F (false), or N (not enough information to determine).

1.  $a-(b+c)=a-b-c$ .
2.  $(a-b)-(a+b)=(a+b)-(a-b)$ .
3.  $a-c=0$ .
4.  $a \bullet b=b \bullet a$ .
5.  $c+b \leq 0$ .
6. 25% of 125 is less than 80% of 15.
7. If a, b, and c are integers greater than zero, then  $0.\overline{abc} = \frac{a \bullet b \bullet c}{100}$  (where  $0.\overline{abc}$  represents a general number in decimal form).
8.  $\frac{c}{d} > 1$ .
9. The product of the opposites of a, b, and c is positive.
10.  $a-b-c+b=(a-b)-(c-b)$ .

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11. Compute: 15% of 30% of 50.
12. Solve for x:  $0.5x=500$ .
13. Find the number exactly half way between  $0.\overline{31}$  and  $0.\overline{76}$ . Express the number as a fraction in simplified form.
14. Sally bought a dress marked 20% off. If the regular price was \$32.00, what was the sale price?
15. Sam bought 3 baseball cards for \$5 each. He sold one for twice what he paid for it, one for 47% more than he paid for it, and one for 21% less than he paid for it. What percentage profit did he make overall?
16. Bill got 81 questions correct on a 90-question test. What percent of the questions did he answer incorrectly?
17. If d, e, f, and g each stand for a different single digit number from 1-9, what is the only possible value for f?  
$$\begin{array}{r} d \\ + e \\ \hline fg \end{array}$$
18. A group of students held a car wash to raise money. They charged \$3.25 for cars and \$4.75 for trucks. They washed 78 cars and 34 trucks. If they spent \$18.00 on supplies, how much profit did they make?
19. You have decided to open a checking account at your local bank. They offer you two options (a) pay a flat \$5.00 per month fee or (b) pay a monthly fee of \$2.00 and pay \$0.15 for each check you write. If you write 13 checks per month, which option is cheaper: a or b?
20. If 15 books cost \$63.90 and you bought \$153.36 worth of books, how many books did you buy?
21. Give the exact value of the difference of  $4.\overline{26}$  and  $2.\overline{11}$  as a mixed number in simplified form.
22. If Travis walks 2 miles to school in 1.5 hours, how many miles, to the nearest tenth, can he walk in 1 hour?
23. Given the following clues what is this mystery number: 0. \_\_\_ \_\_\_ \_\_\_ ?  
Each digit is unique.  
The digit in the hundredths place is 3 times the digit in the tenths place.  
The sum of all three digits is 10.  
The sum of the tenths and thousandths place is 7.

**Two points per problem**

24. Find the sum of all whole numbers from 50 to 100.

School Name \_\_\_\_\_

**JR. HIGH MATH LEAGUE**  
**Whole Numbers and Decimals**  
**ANSWER SHEET**

**GROUP 7-II TEST A**  
**Spring 2001**

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1. \_\_\_\_\_      2. \_\_\_\_\_      3. \_\_\_\_\_  
4. \_\_\_\_\_      5. \_\_\_\_\_      6. \_\_\_\_\_  
7. \_\_\_\_\_      8. \_\_\_\_\_      9. \_\_\_\_\_      10. \_\_\_\_\_

**One point per problem**

11. \_\_\_\_\_  
12.  $x =$  \_\_\_\_\_  
13. \_\_\_\_\_  
14. sale price = \$ \_\_\_\_\_  
15. \_\_\_\_\_ % profit  
16. \_\_\_\_\_ % incorrect  
17.  $f =$  \_\_\_\_\_  
18. profit = \$ \_\_\_\_\_  
19. \_\_\_\_\_ is cheaper  
20. \_\_\_\_\_ books  
21. \_\_\_\_\_  
22. \_\_\_\_\_  
23. 0. \_\_\_\_\_

**Two points per problem**

24. \_\_\_\_\_