Special Note: You need to be proficient in ALL of the sections to be able to pass this level! And, in order to pass each section, you must pass two out of every three of the questions. A good strategy is to do the TWO that you are absolutely positive that you CAN do, skip to the next section, then come BACK and do the ones you skipped at the end.

## Proportions

I. Write \& solve a proportion to answer the question. 5 is what percent of 30 ?
2. In a sample of 100 people, 29 liked chocolate ice cream. What percent liked chocolate ice cream?
3. 140 of 1000 students bought tickets to the upcoming dance. What percent of the students bought dance tickets?
4. 16 is $20 \%$ of what number?
5.7 is $35 \%$ of what number?
6. 12 is $24 \%$ of what number?

## Integers

7. $-6(-3)$
8. $(0)(8)(-1)$
9. $5(-9)$
10. $56 \div(-8)$
11. $-\left(\frac{48}{-6}\right)$
12. $-8 \mid \div 9$

## Equations

Solve the equation for the given variable.
13. $4 x+5=17$
14. $8 x-3=53$
15. $10 x+4=74$

## Area of a Circle

Find the area of a circle with the given diameters. Use 3.1415 for $\pi$.
16. diameter of 16 cm
17. diameter of 30 cm
18. diameter of 50 cm

## Ratio \& Proportions

19. Write as a proportion. 3 is to 8 as 7 is to $x$
20. Write a proportion and solve. Bill's snack mix contains pretzels to peanuts in a ratio of 9 to 5 . If Bill uses 450 grams of pretzels, how many grams of peanuts must he use in his recipe?
21. Write a proportion and solve. Mrs. S-S is enlarging a picture of a butterfly that is 18 in by 9 in. She wants the longest side to be 30 inches. How long will the shorter side be after she enlarges the picture?

## Statistics

22. Find the mean of the data. $23,30,27,26,29$
23. Find the median of the data. $81,90,50,83,55,75,92$
24. Find the mean, median, and mode of the data. $5,4,11,8,15,14,16,15$
