

<b>Practice Problems for Placement Into Math 096 Pre-Algebra</b>
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1. Find the sum of 1005 and 296.
2. Find the product of 15 and 107.
3. Find the quotient of 84 and 6.
4. Evaluate:  $3(10 - 4) + 5^2$
5. Evaluate:  $3 + 51 \div 3 - 2$
6. Evaluate:  $(6 + 1)^2 - 2^3$
7. Evaluate:  $1 + 100 \div 2 \cdot 50$
8. Evaluate:  $6004 - 587 + 13$
9. Evaluate:  $200 - 13^2$
10. Simplify:  $\frac{24}{27}$
11. Add:  $\frac{2}{3} + \frac{1}{2}$
12. Multiply:  $\frac{4}{15} \cdot \frac{25}{36}$
13. Rewrite as a mixed number:  $\frac{62}{7}$
14. Convert to an improper fraction:  $16\frac{1}{2}$
15. Add:  $5\frac{3}{5} + 4\frac{1}{5}$
16. Divide:  $\frac{11}{0}$
17. Round the number 1,945,827 to the nearest hundred.
18. Round the number 1,945,827 to the nearest ten.
19. Round the number 1,945,827 to the nearest million.

20. Round to the nearest hundredth: 65.94613
21. Write the number: one hundred thousand, three hundred forty.
22. Write the number: seven million, eighteen.
23. In the number 9,813,275, what is the value of the 3?
24. George buys 2 pizzas for \$9 each and 5 sandwiches for \$7 each. What is the total for his bill, before taxes?
25. One tablespoon of sugar contains 45 calories. How many tablespoons of sugar would contain 495 calories?
26. You are trying to decide between two washing machines. One costs \$899 and the other costs \$1049. How much more expensive is the higher priced one?
27. Katelyn has \$641 in her checking account. She writes a check for \$150 and then she deposits a \$19 check. What is her new balance?
28. Jerome is training for a marathon. He runs 95 miles per week for 12 weeks. What is his total distance covered in that time?
29. The radius of Jupiter is 43,441 miles. The radius of Saturn is 7257 miles less than the radius of Jupiter. Find the radius of Saturn.
30. If you have a goal to save \$6000 in 2 years, how much do you need to save each month?
31. In a typical week in Missouri, the temperature on Monday was 81°F and the temperature on Friday was 33°F. Find the difference between the temperatures.
32. A kindergarten teacher gives each of her 27 students a gift box. Each gift box contains 8 crayons and 3 pencils. How many pencils did the teacher give away?
33. Kyle is required to sell 40 pizzas for a fundraiser. He sold  $\frac{1}{4}$  of them to relatives and then his neighbor bought  $\frac{1}{2}$  of the remaining pizzas. How many pizzas did the neighbor buy?
34. A punch recipe calls for  $\frac{3}{4}$  cup of pineapple juice. How much pineapple juice is needed to make 3 batches of the punch?
35. A blue scarf is  $\frac{7}{8}$  of a yard and a red scarf is  $\frac{5}{8}$  of a yard. Find the difference in length of the two scarves. Write your answer as a simplified fraction.

36. Find the perimeter of a triangle with sides of  $\frac{1}{12}$  meter,  $\frac{5}{12}$  meter, and  $\frac{11}{12}$  meter.  
Write your answer as a mixed number.
37. A new car lot contains 23 blue cars out of a total of 131 cars. How many cars on the lot are not blue?
38. Find the area of a square with sides of  $\frac{7}{8}$  in.
39. If there are 15 grams of fat in a single serving of salad dressing, and a bottle contains 16 servings, how many grams of fat are in the bottle of salad dressing?
40. Twenty-one people pooled their money and bought lottery tickets. One ticket won a prize of \$6,510,000. How much money will each person receive?
41. Insert the correct inequality,  $>$  or  $<$ , to make a true sentence: 4.519    4.591
42. Insert the correct inequality,  $>$  or  $<$ , to make a true sentence: 8.47351    8.4735
43. Write  $\frac{5}{8}$  as a decimal.
44. Write the decimal 0.911 as a fraction.
45. Add. Write your answer in decimal form.  $\frac{2}{5} + 0.5$

## Answer Sheet

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|--------------------|----------------------|-------------------------------------|
| 1. 1301            | 16. <i>undefined</i> | 31. $48^\circ$                      |
| 2. 1605            | 17. 1,945,800        | 32. 81 pencils                      |
| 3. 14              | 18. 1,945,830        | 33. 15 pizzas                       |
| 4. 43              | 19. 2,000,000        | 34. $2\frac{1}{4}$ cups             |
| 5. 18              | 20. 65.95            | 35. $\frac{1}{4}$ yard              |
| 6. 41              | 21. 100,340          | 36. $1\frac{5}{12}$ meters          |
| 7. 2501            | 22. 7,000,018        | 37. 108 cars                        |
| 8. 5430            | 23. 3000             | 38. $\frac{49}{64}$ in <sup>2</sup> |
| 9. 31              | 24. \$53             | 39. 240 grams                       |
| 10. $\frac{8}{9}$  | 25. 11 tablespoons   | 40. \$310,000                       |
| 11. $\frac{7}{6}$  | 26. \$150            | 41. <                               |
| 12. $\frac{5}{27}$ | 27. \$510            | 42. >                               |
| 13. $8\frac{6}{7}$ | 28. 1140 miles       | 43. 0.625                           |
| 14. $\frac{33}{2}$ | 29. 36,184 miles     | 44. $\frac{911}{1000}$              |
| 15. $9\frac{4}{5}$ | 30. \$250            | 45. 0.9                             |