

Zeta Placement Test

Rewrite each number without an exponent.

1. $1^6 =$ _____

2. $8^2 =$ _____

3. $10^3 =$ _____

Write in decimal notation.

4. $5 \times 10^3 + 2 \times 10^2 + 7 \times 10^1 + 1 \times 10^0 + 3 \times \frac{1}{10^1} + 4 \times \frac{1}{10^2} + 9 \times \frac{1}{10^3} =$

Add or subtract the decimal numbers.

5.
$$\begin{array}{r} 7.52 \\ -1.85 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 6.0 \\ +5.28 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 32.041 \\ - .596 \\ \hline \end{array}$$

Multiply the decimal numbers.

8.
$$\begin{array}{r} 2.49 \\ \times .6 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 1.7 \\ \times 3 \\ \hline \end{array}$$

10.
$$\begin{array}{r} .004 \\ \times .05 \\ \hline \end{array}$$

Convert using whatever method you prefer.

11. 13 km = _____ cm

12. _____ g = 250 mg

Write each percentage as a decimal.

13. $5\% = \underline{\hspace{2cm}}$

14. $65\% = \underline{\hspace{2cm}}$

Write each percentage as a reduced fraction.

15. $25\% = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

16. $32\% = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Change each fraction to a decimal and then to a percentage. Include a fraction in one hundredths place if needed and do not round.

17. $\frac{8}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$

18. $\frac{5}{6} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$

Write the mixed number as a percentage and as a decimal.

19. $4\frac{3}{5} = \frac{\hspace{1cm}}{100} + \frac{\hspace{1cm}}{100} = \frac{\hspace{1cm}}{100} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Change each decimal to a reduced fraction.

20. $0.78 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

21. $0.03 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

Divide to the thousandths place and round to the nearest hundredth.

22. $4 \overline{) 13.3}$

23. $7 \overline{) 4.58}$

Divide until you see a pattern and write the answer with a line over the repeat.

24. $.6 \overline{) 39.4}$

25. $.03 \overline{) .022}$

Divide to the hundredths place. Include a fraction in your answer if there is still a remainder.

26. $11 \overline{)9}$.

27. $9 \overline{)5}$

Solve for the unknown. Check your answer by using it in the original problem.

28. $3.2X + 0.07 = 4.55$

29. Check for #28

Fill in the blanks.

30. A _____ has infinite length and width and is said to be two-dimensional.
31. A _____ has two endpoints.
32. A _____ has no length or width.
33. A line has _____ but no _____ .
34. A _____ has one endpoint.
35. An angle with a measure less than 180° but greater than 90° is a(n) _____ angle.
36. An angle with a measure less than 90° but greater than 0° is a(n) _____ angle.
37. Two figures that are the same shape but different sizes are said to be _____.
38. There are _____ degrees in a circle.
39. The measure of a right angle is _____.
40. An angle with a measure of 180° is a(n) _____ angle.
41. Two shapes that are exactly the same are said to be _____.

42. Find the approximate area and circumference of a circle that has a radius of three feet.
43. Judith received the following amounts of money for doing chores: \$5, \$7, \$3.50, \$5, and \$8. Give the mean, median, and mode for her earnings.
44. Melanie ordered books from a catalog. The prices of the books added up to \$45.60. She had to pay a 6% tax and 8% for shipping. What was the total cost of her order?
45. Brandon entered a contest for free math materials. 758 people each put in one entry, and there will be only one winner. What is the probability of Brandon winning the contest?