Zeta Placement Pre/Post Test

Rewrite each number without an exponent.

1. \(1^6 = \ldots\)  
2. \(8^2 = \ldots\)

3. \(10^3 = \ldots\)

Write in decimal notation.

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

Add or subtract the decimal numbers.

5. \(7.52 \quad \quad \quad \quad \quad -1.85\)
6. \(6.0 \quad \quad \quad \quad \quad + 5.28\)

7. \(3.2041 \quad \quad \quad \quad \quad -0.596\)

Multiply the decimal numbers.

8. \(2.49 \quad \quad \quad \quad \quad \times 0.6\)
9. \(1.7 \quad \quad \quad \quad \quad \times 3\)

10. \(0.04 \quad \quad \quad \quad \quad \times 0.5\)

Convert using whatever method you prefer.

11. \(13 \text{ km} = \ldots \text{ cm}\)
12. \(\ldots \text{ g} = 250 \text{ mg}\)
Write each percentage as a decimal.

13. 5% = __________ 14. 65% = __________

Write each percentage as a reduced fraction.

15. 25% = __ = __ 16. 32% = __ = __

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. \( \frac{8}{10} = \) __ = ____% 18. \( \frac{5}{6} = \) __ = ____%

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

19. \( 4 \frac{3}{5} = \frac{100}{100} + \frac{100}{100} = \frac{100}{100} = \) __ = __

Change each decimal to a reduced fraction.

20. 0.78 = __ = __ 21. 0.03 = __ = __

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

22. \( 4 \sqrt{13.3} \) 23. \( 7 \sqrt{4.58} \)

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

24. \( .6 \overline{39.4} \) 25. \( .0 \overline{30.22} \)
Divide to the hundredths place. Include a fraction in your answer if there is still a remainder.

26. \( 11 \div 9 \)  
27. \( 9 \div 5 \)

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 _________.

ZETA PLACEMENT PRE/POST TEST
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?