Zeta Placement Pre/Post Test

Rewrite each number without an exponent.

1. 1^6 = _____

2. 8^2 = _____

3. 10^3 = _____

Write in decimal notation.

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

_____

Add or subtract the decimal numbers.

5.
```
   7.5 2
 −1.8 5
```

6.
```
    6.0
 + 5.2 8
```

7.
```
 3 2.0 4 1
 −   .5 9 6
```

Multiply the decimal numbers.

8.
```
 2.4 9
 ×  .6
```

9.
```
  1.7
 × 3
```

10.
```
  .0 0 4
 × .0 5
```

Convert using whatever method you prefer.

11. 13 km = _____ cm

12. _____ g = 250 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. $\dfrac{8}{10}$ = _____ = _____%

18. $\dfrac{5}{6}$ = _____ = _____%

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

19. $4\dfrac{3}{5}$ = $\dfrac{}{100}$ + $\dfrac{}{100}$ = $\dfrac{}{100}$ = _____ = _____

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 $\overline{)1\,3.3}$

23. 7 $\overline{)4.5\,8}$

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

24. .6 $\overline{)3\,9.4}$

25. .0 3 $\overline{).0\,2\,2}$

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?