Zeta Placement Instructions

This assessment will help determine if this level of Math-U-See is a good place for your child to start. Each level of Math-U-See builds upon the concepts taught in previous levels. Successful placement involves finding the highest level your child has fully mastered and placing them one level above that.

1 Prior to beginning the assessment:

- Understand that the goal isn't to get all the questions correct. We are determining which concepts they have not yet mastered.
- Encourage your child and let them know that this is an assessment and NOT a test.
- Recognize they might already know some of the concepts taught in this level.
- Let your child know there may be questions they don't yet understand.
- Print the assessment and ensure you have a pencil and eraser.
- Your child may want extra paper to work through the questions.

2 Let your child know while taking the assessment:

- If they don't understand or can't do a question have them move to the next one.
- If they want to attempt a question but are not sure they understand it, have them mark it with a happy face.
- If they cannot answer 3 or more questions in a row, it is okay to stop doing this assessment.

3 Grading the assessment:

- A question that your child has marked with a happy face indicates to you that this concept is not completely understood and must be reviewed.
- For incorrect answers, ask your child how they arrived at their answer. If they understand the concept, they should be able to correct the mistake on their own. This is considered a computational error. For the sake of this assessment do not mark this as incorrect.
- If there are only one or two concepts they need to learn or review from a given level, it may be possible to just remediate those and start in the next level higher.

4 Analyzing the results:

Most answers are incorrect or have happy faces.	5 or more answers are incorrect or have happy faces.	Most answers are correct and there are no happy faces.
Have them try the assessement for	**Your child is ready for**	**Have them try the assessment for**
Epsilon	**Zeta**	**Pre-Algebra**

If you have questions after your child has taken the assessment, please contact us with the results and we will be able to help you determine the best level for them.

Zeta Placement Pre/Post Test

Rewrite eachnumber without an exponent.

1. 1^6 = _____

2. 8^2 = _____

3. 10^3 = _____

Write in decimalnotation.

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

_____

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 decimalnumbers.

8. 2.4 9
   · .6

9. 1.7
   · 3

10. .0 0 4
    · .0 5

Convert using whatevermethod 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. $\frac{8}{10}$ = _____ = _____%

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

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

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

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. $4\overline{)13.3}$

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?

Answer Key

Zeta Placement Pre/Post Test

Rewrite each number without an exponent.

1. $1^6 =$ 1

2. $8^2 =$ 64

3. $10^3 =$ 1,000

Write in decimal notation.

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

5,271.349

Add or subtract the decimal numbers.

5.
$$\begin{array}{r} 7.52 \\ -1.85 \\ \hline 5.67 \end{array}$$

6.
$$\begin{array}{r} 6.0 \\ +5.28 \\ \hline 11.28 \end{array}$$

7.
$$\begin{array}{r} 32.041 \\ -\ .596 \\ \hline 31.445 \end{array}$$

Multiply the decimal numbers.

8.
$$\begin{array}{r} 2.49 \\ \cdot\ 0.6 \\ \hline 1.494 \end{array}$$

9.
$$\begin{array}{r} 1.7 \\ \cdot\ 3 \\ \hline 5.1 \end{array}$$

10.
$$\begin{array}{r} 0.004 \\ \cdot\ 0.05 \\ \hline 0.00020 \end{array}$$

Convert using whatever method you prefer.

11. 13 km = 1,300,000 cm

12. 0.25 g = 250 mg

Write each percentage as a decimal.

13. 5% = 0.05

14. 65% = 0.65

Write each percentage as a reduced fraction.

15. $25\% = \frac{25}{100} = \frac{1}{4}$

16. $32\% = \frac{32}{100} = \frac{8}{25}$

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. $\frac{8}{10} = 0.8 = 80\%$

18. $\frac{5}{6} = 0.83\frac{1}{3} = 83\frac{1}{3}\%$

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

19. $4\frac{3}{5} = \frac{400}{100} + \frac{60}{100} = \frac{460}{100} = 4.60 = 460\%$

Change each decimal to a reduced fraction.

20. $0.78 = \frac{78}{100} = \frac{39}{50}$

21. $0.03 = \frac{3}{100} =$ ____

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

22. $4\overline{)13.3}$

3.325 ≈ 3.33
4)13.300
12 00
130
120
10
8
2

23. $7\overline{)4.58}$

0.654 ≈ 0.65
7)4.580
4200
380
350
30
28
2

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

24. $0.6\overline{)39.4}$

65.66 ≈ $65.\overline{6}$
.6)39.400
36000
3400
3000
400
360
40
36
4

25. $0.03\overline{)0.022}$

0.733 ≈ $0.7\overline{3}$
.03).02200
2100
100
90
10
9
1

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

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

$$11\overline{)9.00}\quad 0.81\tfrac{9}{11}$$
880
20
11
9

27. $9\overline{)5}$

$$9\overline{)5.00}\quad 0.55\tfrac{5}{9}$$
450
50
45
5

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

28. $3.2X + 0.07 = 4.55$

$$3.2X + 0.07 = 4.55$$
$$3.2X = 4.55 - 0.07$$
$$3.2X = 4.48$$
$$X = 4.48 \div 3.2$$
$$X = 1.4$$

29. Check for #28

$$3.2(1.4) + 0.07 = 4.55$$
$$4.48 + 0.07 = 4.55$$
$$4.55 = 4.55$$

Fill in the blanks.

30. A ___plane___ has infinite length and width and is said to be two-dimensional.

31. A line segment has two endpoints.

32. A ___point___ has no length or width.

33. A line has ___length___ but no ___width___.

34. A ___ray___ has one endpoint.

35. An angle with a measure less than 180° but greater than 90° is a(n) ___obtuse___ angle.

36. An angle with a measure less than 90° but greater than 0° is a(n) ___acute___ angle.

37. Two figures that are the same shape but different sizes are said to be ___similar___.

38. There are ___360___ degrees in a circle.

39. The measure of a right angle is ___90°___.

40. An angle with a measure of 180° is a(n) ___straight___ angle.

41. Two shapes that are exactly the same are said to be ___congruent___.

42. Find the approximate area and circumference of a circle that has a radius of three feet.

$A \approx 3.14(3 \text{ ft})^2 \approx 28.26 \text{ ft}^2$
$C \approx 3.14(6 \text{ ft}) \approx 18.84 \text{ ft}$

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.

$3.50 + $5 + $5 + $7 + $8 = $28.50
mean = $28.50 ÷ 5 = $5.70, median = $5, mode = $5

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?

$45.60 · 1.14 ≈ $51.98

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?

$\frac{1}{758}$