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| **Question:**  | **Work and Answer** |
| 1. Place the following numbers from least to greatest.  |  |
| 2. Fill in the boxes with integers. |  |
| 3. Points A, B, C, and D are located on a number line. Which point represents  |  |
| 4. The area of a square picture frame is 40 in2. Find the length of each side of the frame to the nearest hundredth. |  |
| 5. Compare and  |  |
| 6. Simplify  |  |
| 7. At the fall carnival, one game asks participants to guess the number of marbles in a glass cube. If Liam counts there are 10 marbles along one edge of the cube, what is a good guess of how many marbles are in the jar? |  |
| 8. Find the value of x.  |  |
| 9. Eddie knows the volume of a cone is 27π cubic inches. Find the radius of the sphere given the formula for radius below.  |  |
| 10. The area of a chalkboard is 220 square inches. *About* how long is each side of the chalkboard? |  |
| 11. List all classifications of the real number systems of the number below:  |  |
| 12. A St. Louis Cardinals player has a batting average of Convert his batting average to a decimal. |  |
| 13. List the values from greatest to least. , , ,  |  |
| 14. Circle the irrational value. |  |
| 15. Give an example of a real number that is rational, but not an integer.  |  |
| 16. Between what two numbers does lie between on a number line? |  |
| 17. The area of square bulletin board is 20 ft2. Lucas thinks they should use ft. of border on each side. Claire thinks they should use ft. of boarder on each side. Who is more accurate and why? |  |
| 18. Which point represents  |  |
| 19. What is the sum of all the integers that fall between and ? |  |
| 20. Approximate the value of . |  |
| 21. Simplify.  |  |
| 22. Simplify  |  |
| 23. Steve showed the following work on his paper. What mistakes did he make? What is the correct answer?  |  |
| 24. Simplify  |  |
| 25. Explain the steps to simplify . |  |
| 26. List the values from least to greatest.  |  |
| 27. There are 140,000,000 miles between Earth and Mars. Write this number in scientific notation. |  |
| 28. The amount of water on the earth is about 1.4 x 108 square miles. Write this number in standard form. |  |
| 29. Simplify  |  |
| 30. The distance from Earth to the sun is 9.3 x107 miles. Earth is 2.4 x105 miles from to the moon. Is Earth closer to the sun or the moon? |  |
| 31. An object weighs 2 x 104 lbs. How much does an object 300 times heavier weigh? Write your answer in scientific notation. |  |
| 32. Divide |  |
| 33. Sarah has about 7.2 x 106 hairs on her head. Sarah’s baby sister has about 3.2 x 104 hairs on her head. How much hair do they have altogether? |  |
| 34. Multiply |  |
| 35. Solve the equation for x.  |  |
| 36. What value(s) of x will make this equation true?  X3 = 512 |  |
| 37. What value(s) of x will make this equation true?  |  |
| 38. What is the side length of a square with the area of  |  |
| 39. Solve for x.  |  |
| 40. John wants to visit the community pool for the summer. He can buy a membership at the beginning of the summer for $40 and pay only $2 each visit. John’s other option is to pay $6 each visit to the pool. How many visits must John make to the pool this summer for the two plans to be equal cost? |  |
| 41. How many solutions does this equation have?  |  |
| 42. The length of a rectangle is one centimeter less than twice the width. The perimeter of the rectangle is 40 cm. What are the dimensions of the rectangle? |  |
| 43. Jeremy scored a 95, 87, and 90 on the first three tests in science. What must he make on the fourth test to have a 93 average in science? |  |
| 44. In the triangle ABC, the measure of angle A is 30 and angle B is 65. What is the measure of angle C? |  |
| 45. There is a 6 foot tall guy with a shadow of 10 feet. Next to him is the flag pole that casts a shadow of 30 feet. How tall is the flag pole? |  |