# Grade 6 #6th Grade

1. Why would it be useful to know the greatest common factor of a set of numbers?
2. Why would it be useful to know the least common multiple of a set of numbers?
3. How can the distributive property help me with computation?
4. Why does the process of invert and multiply work when dividing fractions?
5. When I divide one number by another number, do I always get a quotient smaller than my original number?
6. When I divide a fraction by a fraction what do the dividend, quotient and divisor represent?
7. What kind of models can I use to show solutions to word problems involving fractions?
8. Which strategies are helpful when dividing multi-digit numbers?
9. Which strategies are helpful when performing operations on multi-digit decimals?
10. What kinds of problems can I solve by using ratios?
11. How can I tell if a relationship is multiplicative?
12. What is the difference between a multiplicative and an additive relationship?
13. What are equivalent ratios?
14. What are rates?
15. How are unit rates helpful in solving real-world problems?
16. How are ratios and rates similar and different?
17. What are percentages?
18. What information do I get when I compare two numbers using a ratio?
19. How are “standard form” and “exponential form” related?
20. What is the purpose of an exponent?
21. How are exponents used when evaluating expressions?
22. How is the order of operations used to evaluate expressions?
23. How are exponents useful in solving mathematical and real world problems?
24. How are properties of numbers helpful in evaluating expressions?
25. What strategies can I use to help me understand and represent real situations using algebraic expressions?
26. How are the properties (Identify, Associative and Commutative) used to evaluate, simplify and expand expressions?
27. How is the Distributive Property used to evaluate, simplify and expand expressions?
28. How can I tell if two expressions are equivalent?
29. How is an equation like a balance? How can the idea of balance help me solve an equation?
30. What strategies can I use to help me understand and represent real situations using proportions, equations and inequalities?
31. How can I write, interpret and manipulate proportions, equations, and inequalities?
32. How can I solve a proportion and an equation?
33. How can I tell the difference between an expression, equation and an inequality?
34. How are the solutions of equations and inequalities different?
35. What does an equal sign mean mathematically?
36. How can proportions be used to solve problems?
37. How can proportional relationships be described using the equation *y* = k*x*?
38. How can proportional relationships be represented using rules, tables, and graphs?
39. How can the graph of *y* = k*x* be interpreted for different contexts?
40. How does a change in one variable affect the other variable in a given situation?
41. Which tells me more about the relationship I am investigating, a table, a graph or a formula?
42. How can we find the area of figures?
43. How can we cut and rearrange irregular polygons in order to find their area?
44. How can we use one figure to determine the area of another?
45. How do we measure the area of a shape without a formula for that shape?
46. How are the areas of geometric figures related to each other?
47. How can I use manipulatives and nets to help compute the surface areas of rectangular and triangular prisms?
48. What kinds of problems can be solved using surface areas of rectangular and triangular prisms?
49. How can I interpret and sketch views of rectangular and triangular prisms?
50. How can I use formulas to determine the volume of right rectangular prisms?
51. How can I determine the appropriate units of measure that should be used when computing the volume and surface area of prisms?
52. What kinds of problems can be solved using volumes of fundamental solid figures?
53. In what ways can I measure the volume of a rectangular prism with fractional edge lengths?
54. What is the best way to organize a set of data?
55. What kinds of graphs will best represent a given set of data?
56. How can I describe the center of a set of data?
57. How can I decide which measure of center (i.e., mean or median) best describes the data?
58. How can I describe the spread of a set of data?
59. How can I use data to compare different groups?
60. How do I choose and create appropriate graphs to represent data?
61. What conclusions can be drawn from data?
62. How can I recognize when a question is statistical and when it is not?
63. What is the difference in a measure of center and a measure of variation?
64. When are negative numbers used and why are they important?
65. Why is it useful for me to know the absolute value of a number?
66. When is graphing on the coordinate plane helpful?
67. How do I use positive and negative numbers in everyday life?
68. Where do I place positive and negative rational numbers on the number line?
69. How do I use positive and negative numbers to represent quantities in real-world contexts?
70. What are opposites, and how are opposites shown on a number line?
71. How do statements of inequality help me place numbers on a number line?
72. How can I use coordinates to find the distances between points?
73. How can I use number lines to find the distances between points?
74. How can I use absolute value to find the lengths of the sides of polygons on the coordinate plane?