

This is a collection of some of the more difficult concepts a student would have encountered before grade 6. Do your best to answer each question. You can use additional sheets of paper. If you don't know how to solve a problem then now is a great time to learn.

1. How many 3×3 squares can fit inside a rectangle with a height of 24 and width of 18?
2. Write the prime factorization of 200. (I.e. write 200 as a product of prime numbers.)
3. What is the value of 64×681 ?
4. If today is Tuesday, what day of the week will it be 100 days from now?
5. Which is bigger: $3\frac{5}{7} + 5\frac{3}{7}$ or $2\frac{4}{7} \times 3$?
6. For a fundraiser, a club sold two types of candles: red and green. Three fifths of the candles they sold were green. If they sold 48 green candles, how many red candles did they sell?
7. Write the number 22 million, 14 thousand, 733.
8. What does the digit 4 mean in the number 652,488,608?
9. It costs \$6 to ride a roller coaster. How many roller coaster rides can a person have for \$728?
10. A 12 ft long board is cut into pieces that are $\frac{3}{4}$ of a foot in length. How many total pieces are obtained?
11. Place the following six values in order from least to greatest? $1^6, 2^5, 3^4, 4^3, 5^2, 6^1$
12. John claims that when you divide 10 by a number the result will be less than 10. Give an example of a number you could use to show that John is incorrect.
13. A rectangular prism has a volume of 84 cm^3 . It's height is 3 cm, and it's width is 4 cm. What is its length?
14. Place the following values in order from least to greatest.

$$5.6, \quad \frac{23}{4}, \quad 5.19, \quad 5\frac{1}{2}, \quad 6\frac{1}{20}$$

15. An ant starts at the point with coordinates (4, 7). It crawls 3 units East, 5 units South, and then 6 units West. What are the coordinates of the point where the ant is now?

