

***Do not take too much time on any question. You can skip and go back. Don't forget labels where appropriate.***

***Enjoy!***

1. The ones' digit of  $24 \times 46 \times 68$  is \_\_\_\_\_?
2. Buddy the bullfrog weighs four times as much as Trevor the tree frog. If Buddy weighs 200 g, then Trevor weighs \_\_\_\_\_?
3. If the sum of two whole numbers is 16 and their difference is 4, then their product is \_\_\_\_\_?
4. If Sammy bikes 3 km every 10 minutes, how far does he bike in 2 hours?
5. Three days after tomorrow is how many days after the day before yesterday?
6. If 5 glops weigh as much as 9 borks, then 90 borks weigh as much as \_\_\_\_\_glops?
7. On each day after the first day of a three-day festival, the attendance is lower than it was on the day before. Each time the attendance decreases, it decreases by the same number of people. If 600,000 people attend the festival on the second day, what is the average daily attendance of this three-day festival?
8. Hannah has only quarter, dimes, nickels, and pennies. She has a different number of each type of coin. If Hannah's 10 coins has a total value of 83¢, she has more \_\_\_\_\_ than any other type of coin.
9. Yesterday the train came at 8 AM, and today it came at 3 PM. How many hours passed between yesterday's and today's arrivals?
10. How many prime factors does 42 have?

11. Anna's age is three times the age of her little sister Sam. Her Uncle Joe's age is three times the sum of the ages of Anna and Sam. If Anna is 18, how old is Joe?
12.  $5 = 10\%$  of  $20\%$  of \_\_\_\_\_.
13. The sum of two numbers is 12, and their product is 35. The larger of the two numbers is \_\_\_\_\_?
14. When twice the perimeter of a square is tripled, the result is 72. What is the area of the square?
15. On every odd-numbered day in May, Dave ran for 15 minutes. On every even-numbered day in May, he ran for 44 minutes. For how many hours did he run in May? (Hint: there are 31 days in May)
16.  $300\%$  of 300 = ?% of 3000
17. There are 60 parents watching a school play. If there are 3 times as many mothers as fathers watching, how many mothers are watching?
18. Jen has \$200 in her piggy bank. She had 80% less money in her piggy bank last year. How much was in that bank last year?
19. At least how many  $2 \times 2$  uncut tiles must Paul buy to cover a  $7 \times 7$  section of floor?
20. Kyle skateboards from home to Cody's house at 5 km/hour, then returns to his house along the same route at 7 km/hour. What is Kyle's average speed, in km/hour, for the entire trip?

21. If a square's perimeter is three-fourths, its area is \_\_\_?
22. I got paid for 8 hours of work at a victory party, but the host added 20% as my tip and gave me \$120. What was my hourly wage without the tip?
23. If 5 bowls = 2 cups, and 3 mugs = 4 bowls, the 8 cups = \_\_\_\_\_ mugs?
24. My 10 flights cost \$95 each. Your 20 flights cost \$86 each. What was the average cost of these 30 flights?
25. After Ali took 25% of the books and Ed took 50% of the remainder, only 30 books remained. How many books did Ali take?

Bonus (only used in case of a tie)

1. If  $\left(\frac{a}{b}\right)^{-c}$  equals  $\left(\frac{b}{a}\right)^{cd}$  then  $\left(\frac{2}{3}\right)^{-4}$  equals? (Express your answer as a number without exponents).
2. The sum of 1024 fours is four to what power?
3. Make the numbers 1-10 using only 2, 4, & 6. You must use each digit one time for each number you make. For example: Using 1, 2, 3 I can make  $(3-2) \times 1 = 1$ ;  $3-2+1=2$ ;  $\frac{3}{1} + 2 = 5$