

_____ 1) Compute 1.1×85

_____ 2) David gets 17 cookies for each math problem he gets correct. David gets 3397 cookies. How many full math problems did David get correct?

_____ 3) $20 \cdot 17 - 20 \div 5 =$

_____ 4) $-25^2 + 27 \cdot 23 =$

_____ 5) What is the sum of the first five triangular numbers if the first triangular number is one?

_____ 6) Write $\sqrt{1200}$ in simple radical form.

_____ 7) The square root of 83 lies between two consecutive integers, a and b . Find $|a - b|$.

_____ 8) What is 59,049 divided by the cube of 9?

_____ 9) What is the probability an integer in the set $\{1, 2, 3, 4, \dots, 112\}$ is divisible by 4 but not divisible by 3?

_____ 10) Alex finds 2^1 strands of hair in his pool on Monday, 2^2 strands on Tuesday, 2^3 strands on Wednesday, 2^4 on Thursday, and so on. If this pattern continues for 10 days, how many total strands of hair will Alex find in his pool?

_____ 11) What is the smallest three-digit number divisible by 3, 4, 5, and 6?

_____ 12) Write in simple radical form : $\sqrt{180} + \sqrt{45} - \sqrt{20}$.

_____ 13) Simplify: $\frac{\frac{A}{B} - \frac{B}{A}}{\frac{1}{A} + \frac{1}{B}}$ where no denominator is equal to zero.

_____ 14) How many different three-digit area codes are possible if all three digits must be different and the first digit cannot be zero?

_____ 15) What is the square root of the square of the cube of 3?

_____ 16) What is the logical equivalent of not not not not not not not not not not true?

_____ 17) Simplify. $\frac{24}{\sqrt{12}}$

_____ 18) Simplify. $\frac{24}{\sqrt{19} - \sqrt{13}}$

_____ 19) Hayden can swim a 100-meter backstroke race in 60 seconds. The world's record is 54 seconds. What percent improvement does Hayden need to make to match the world's record?

_____ 20) Given $2x^2 - 5x + 8$. Find (sum of the roots) - (product of the roots).

_____ 21) Lindsay's Cheetos Factory can produce 1337^{47} hot fries in a year. Find the units of 1337^{47} .

_____ 22) What is the sum of the interior angles of an octagon?

_____ 23) Find the LCM of 24 and 28.

_____ 24) What is the smallest possible value for y for $y = x^2 + 2x + 2$?

_____ 25) Find the volume of a cube with edge length 6.