

Grade 6 Summer Math Challenge

Dear 6th Grade Student,

There are 75 days from the end of this school year until the beginning of school in September. You are being challenged to complete the following math worksheets during the summer vacation. This is a review of all you have done in 6th grade, and you only have to do 1 problem a day!

All you have to do is complete this packet and return it to your math teacher in September. Schools will reward students who complete the challenge in the same way they reward students who complete the Summer Reading Challenge.

Are you up to the challenge?

Question	Answer	Question	Answer
1.) Write all the factors of 36.	1.)	2.) Find 2 numbers that have 2, 3 and 5 as factors.	2.)
3.) Give 3 examples of prime numbers.	3.)	4.) Give 3 examples of composite numbers.	4.)
5.) Which of these numbers are divisors of 64? 2, 6, 8, 12, 16	5.)	6.) Which of these numbers are perfect numbers? 4, 6, 10, 22, 28	6.)
7.) Is the sum of two even numbers even or odd?	7.)	8.) Is the product of two odd numbers even or odd?	8.)
9.) Which of these numbers is a square number? 128, 225, 360, 399	9.)	10.) What is the prime factorization of 128?	10.)
11.) What is the least common multiple (LCM) of 24 and 36?	11.)	12.) List the first 10 multiples of 15.	12.)

13.) Which fraction is greatest? $7/6, 9/8, 13/12, 14/15$	13.)	14.) Find the greatest common factor (GCF) of 40 and 25.	14.)
15.) What number has this prime factorization? $2^4 \cdot 3 \cdot 5$	15.)	16.) Compare using $<$, $>$ or $=$ $\frac{8}{12}$ $\frac{6}{9}$	16.)
17.) Simplify. $(6 \times 3) + 72 \div 8 - 5 + 1$	17.)	18.) Simplify. $8 + 5 - (52 \div 4)$	18.)
19.) Fill in the missing number. $94.19 + 2.6 + 39 + 29 - \underline{\hspace{1cm}} = 161.29$	19.)	20.) The month that is 3 months after March is _____ months before October.	20.)
21.) Solve. $\frac{1}{2} + \frac{1}{4}$	21.)	22.) Solve. $\frac{1}{4} + \frac{2}{6} + \frac{7}{12}$	22.)
23.) Find 4 fractions between $\frac{8}{10}$ and $\frac{5}{4}$	23.)	24.) Find 3 fractions equivalent to $\frac{4}{6}$.	24.)
25.) $144 \times 60 = 72 \times \underline{\hspace{1cm}}$	25.)	26.) Round the sum of $3.83 + 2.34$ to the nearest tenth.	26.)
27.) Which one is the smallest possible product of 2 different prime numbers? 0, 3, 5, 6	27.)	28.) Today, Tim's age + Kim's age = 28. Two years ago, this sum was _____. 24, 26, 30, 32	28.)
29.) $2^4 - 2^3 - 2^2 - 2^1 =$	29.)	30.) 500 is midway between 350 and _____. 200, 650, 700, 850	30.)

31.) What is the sum of the first 4 odd whole numbers?	31.)	32.) $200^3 \div 100^3 =$	32.)
33.) $(9+1+8+2) \div (7+3+6+4) =$	33.)	34.) 25% of one hour = _____ minutes	34.)
35.) Twice my age, plus 9, is 37. How old am I?	35.)	36.) A polygon cannot have _____ sides. 2, 3, 4, 21	36.)
37.) If 3 pies require 2 dozen apples, then 6 pies require _____ apples. 12, 18, 36, 48	37.)	38.) What is the tens' digit of 55×55 ?	38.)
39.) The sum of the measures of all the angles in a triangle is _____.	39.)	40.) Fill in the missing number. $69.34 - \underline{\hspace{1cm}} - 3.1 = 46.94$	40.)
41.) If the perimeter of a pentagon is 60, its average side length is _____.	41.)	42.) Of the 10 factors of 48, how many are divisible by 2?	42.)
43.) What time is 1111 minutes after 11:11 A.M.?	43.)	44.) 75% of a 12-slice pizza is _____ slices?	44.)
45.) $3^2 + 4^4 + 12^2 =$	45.)	46.) Write the decimal in words. 3.602	46.)
47.) Name the decimal as a fraction or mixed number. 3.4	47.)	48.) Order the following decimals from least to greatest. 0.205, 1.07, 0.3, 0.52	48.)

49.) Solve the equation. $140 = 70 + U$	49.)	50.) Solve the equation. $H - 35 = 58$	50.)
51.) Solve the equation. $7q = 49$	51.)	52.) What is an equilateral triangle?	52.)
53.) Write the expression: 41 times the difference of 9 and k	53.)	54.) Write $<$, $>$ or $=$ 1.759 _____ 1.01	54.)
55.) Write the number in standard form. Forty-two thousand, five hundred	55.)	56.) Complete. $241,008 \text{ g} =$ _____ kg	56.)
57.) Complete. $27 \text{ ft} =$ _____ yd	57.)	58.) Complete. $18 \text{ in} =$ _____ ft	58.)
59.) Complete. $250 \text{ cm} =$ _____ m	59.)	60.) Complete. $4 \text{ gal.} =$ _____ quarts	60.)
61.) Find the quotient. $7 \overline{)1,463}$	61.)	62.) Find the quotient. $89 \overline{)18,512}$	62.)
63.) Find: $8 \cdot 64 \div 0.6$	63.)	64.) Multiply. 0.931×5.8	64.)
65.) Write as a fraction. 0.3	65.)	66.) Write as a decimal. $\frac{3}{5}$	66.)

Formulas:

Area: Rectangle: $A = l \times w$

Triangle: $A = \frac{1}{2} b \times h$

Circle: $A = \pi r^2$

$\pi = 3.14$

Perimeter: Rectangle: $P = 2l + 2w$

Square: $P = 4s$

Circumference: $C = 2\pi r$ or $C = \pi d$