

## Grade 7 Summer Math Challenge

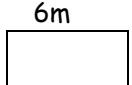
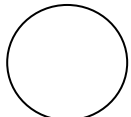
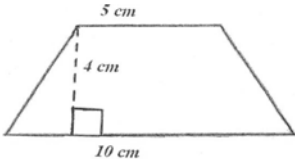
Dear 7<sup>th</sup> grade students,

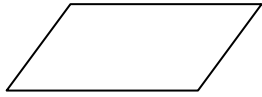
There are 69 days from the end of this school year until the beginning of school in September. You are being challenged to complete the following math worksheets during your summer vacation. This is a review of all you have done in 7<sup>th</sup> grade, and you only have to do one or two problems a day!

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.) $ -7  =$	1.)	2.) Write as a decimal: $\frac{3}{8}$	2.)
3.) Write all the factors of 24	3.)	4.) Write 4 multiples of 12	4.)
5.) $2\frac{1}{5} + 8\frac{2}{3} =$	5.)	6.) $9\frac{1}{6} - 2\frac{7}{9} =$	6.)
7.) $\frac{4}{9} \times 2\frac{1}{5} =$	7.)	8.) $\frac{2}{5} \div 8 =$	8.)
9.) $-4 - 14 =$	9.)	10.) $21 \div (-3) =$	10.)
11.) $-2 + (-3) =$	11.)	12.) $-8(-7) =$	12.)
13.) $0.24 \times 1.3 =$	13.)	14.) $25.62 \div 0.84 =$	14.)
15.) $62.1 - 15.58 =$	15.)	16.) $-(6^2) + 3^3 - 7 =$	16.)
17.) $17 + (3 + 2)^2 - 4 =$	17.)	18.) 30% of 700 =	18.)
19.) Find K: $\frac{K}{8} = \frac{14}{4}$	19.)	20.) Find Y: $\frac{Y}{5} = 25$	20.)
21.) $\frac{n}{4} = 12$	21.)	22.) Write in scientific notation: 71,000,000,000	22.)
23.) Write in standard form: $3.5 \times 10^7$	23.)	24.) $7 \cdot 3\frac{5}{7}$	24.)

25.) Which numbers are primes? 1, 2, 3, 4, 5, 8, 11, 13	25.)	26.) Write the prime factorization of 36	26.)
27.) $7^2 =$	27.)	28.) 72 in. = ___ ft.	28.)
29.) $1\frac{1}{2}$ cups = ___ oz.	29.)	30.) $ -5  +  -5  -  -3 $	30.)
31.) Find the mean: 7, 9, 15, 14, 12, 10, 15, 14, 12, 10, 15, 14	31.)	32.) Find the area. 4m  6m	32.)
33.) Find the area of the circle $r = 4\text{cm}$ 	33.)	34.) Find the total number of combinations: <b>SHIRT:</b> red, white, or green; <b>PANTS:</b> blue, tan	34.)
35.) $4,521 \div 27$	35.)	36.) List the factors of 36	36.)
37.) Write as a decimal. $\frac{2}{5}$	37.)	38.) 15% of 80	38.)
39.) $8\frac{1}{2} + 5\frac{3}{7}$	39.)	40.) $\frac{8}{9} - \frac{3}{4}$	40.)
41.) Find the area. 	41.)	42.) Find the total number of lunch choices: <b>DRINK:</b> punch, water or soda; <b>SANDWICH:</b> hamburger, hot dog or grilled cheese	42.)
43.) $6\frac{1}{3}$ yards = _____ inches	43.)	44.) $\frac{2}{3} \div 1\frac{1}{3}$	44.)
45.) $21 - (-7)$	45.)	46.) $-15 \div (-5)$	46.)
47.) $-8 + (-5)$	47.)	48.) $-12 \cdot 7$	48.)
49.) $3.15 \cdot 2.7$	49.)	50.) $2.01 \div 0.3$	50.)
51.) $108.82 - 77.4$	51.)	52.) $-4 + (-3)5$	52.)

53.) A bucket contains 120 red, blue and yellow blocks. The probability of drawing a red is 35% and the probability of drawing a blue is 25%. How many blocks of each color are in the bucket?	53.)	54.) Find the area if the base is 5 in. and the height is 2 in. 	54.)
55.) Evaluate $-4(n+3)$ when $n=-6$	55.)	56.) Write in scientific notation 14,300,000	56.)
57.) Write in standard form $2.103 \times 10^{10}$	57.)	58.) Complete the series: 89, 83, 77, 71, __, __, __	58.)
59.) $(-3)^3 =$	59.)	60.) $16 +  -4  =$	60.)
61.) In which quadrant would the following point fall (2, 4)?	61.)	62.) $4\frac{2}{3}$ yards = _____ feet	62.)
63.) Find the median 7, 9, 15, 14, 12, 10, 15, 14	63.)	64.) Find the area of a square with a side of 7 feet.	64.)
65.) Find the area of a circle if the diameter is 20 cm.	65.)	66.) Write as a decimal $\frac{5}{8}$	66.)
67.) List the factors of 50	67.)	68.) Divide 2.628 by 1.2	68.)
69.) List 6 multiples of 12	69.)	70.) $4\frac{2}{3} + 3\frac{4}{7}$	70.)
71.) $4\frac{2}{5} \cdot 3\frac{3}{4}$	71.)	72.) $9 - 4\frac{3}{4}$	72.)
73.) 25% of 500 =	73.)	74.) $\frac{3}{5} - 9$	74.)
75.) $4.81 \times 7.85 =$	75.)	76.) $9(-8) =$	76.)
79.) Write the Prime Factorization of 72	79.)	80.) $\frac{-36}{9} =$	80.)

81.) Write the first 7 prime numbers	81.)	82.) $-6 + (-8) =$	82.)
83.) $38.02 \times 3.65 =$	83.)	84.) $2 \times 3^2 + 4 - 7 =$	84.)
85.) $132.03 \div 8.1 =$	85.)	86.) $-12 - (-21) =$	86.)
87.) Write in scientific notation. 409,000,000,000	87.)	88.) What is range of the following numbers: 18, 12, 10, 14, 14, 16	88.)
89.) Evaluate $5b + 4c^2 - 4$ if $b=3$ and $c=2$	89.)	90.) Evaluate $\frac{6w+2}{b}$ when $w=5$ and $b=4$	90.)
91.) In which quadrant would the following point fall? $(-2, 4)$	91.)	92.) Find the mode: 7, 9, 15, 14, 12, 10, 15, 14	92.)
93.) $2\frac{4}{5} \div 3\frac{1}{3} =$	93.)	94.) $\frac{1}{2} \cdot 2\frac{1}{4} \cdot \frac{1}{6} =$	94.)
95.) 16% of 200 =	95.)	96.) $8 - (-8) =$	96.)
97.) $2^5 =$	97.)	98.) $80.4 \times 2.34 =$	98.)
99.) $-1\frac{1}{6} + 2\frac{2}{3} =$	99.)	100.) $-7 \times 9 =$	100.)
101.) $14\frac{1}{3} - 7\frac{3}{4} =$	101.)	102.) Solve for $b$ $\frac{8}{12} = \frac{2}{b}$	102.)
103.) $\frac{-52}{-4} =$	103.)	104.) Solve for $x$ : $\frac{4}{7} = \frac{x}{63}$	104.)
105.) $4^3 =$	105.)	106.) $-23 + 18 =$	106.)

**Formulas:**

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

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

Trapezoid:  $A = \frac{1}{2} h(b_1 + b_2)$

Circle  $A = \pi r^2$        $\pi = 3.14$

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

Square:  $P = 4s$

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

1 cup = 8 oz.