
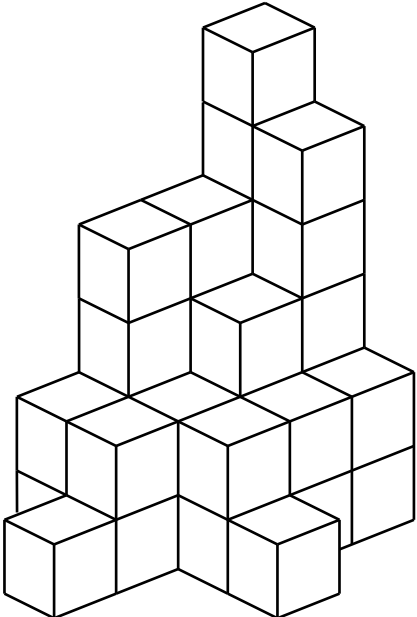


**DO NOT FLIP OPEN THIS
TEST UNTIL YOU ARE
INSTRUCTED TO BEGIN**

**ONLY ANSWERS WRITTEN
ON THE ANSWER SHEET
WILL BE SCORED**

2020 Castro Valley Junior Math Tournament
 Geometry & Potpourri Team Test – 3rd-5th Grades

1	What is the side length, in centimeters, of a square with a perimeter measuring 8 cm?
2	What is the area, in square meters, of a rectangle with sides measuring 4 m and 7 m?
3	What is the missing term of the geometric (multiplying or dividing) sequence 3, 21, 147, 1029, ____, ...?
4	What fraction of the figure to the right is UNshaded? 
5	What is the surface area, in square inches, of a cube with edges measuring 4 in?
6	What is the measure in degrees, of an interior angle of an equilateral triangle?
7	How many counting numbers between 10 and 20 inclusive are prime?
8	How many positive 2-digit counting numbers are palindromes? A palindrome is a number that reads the same forwards or backwards, such as 121 or 3443.
9	What is the minimum number of blocks needed to build the stack shown to the right? 

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10	In a 3-by-3 magic square, the numbers 1-9 can be entered one per cell in such a way that the sum of each row, column, and diagonal is equal. If this is done in the magic square to the right, what is the product of c and d?	<table border="1" style="border-collapse: collapse; width: 60px; height: 60px;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px; text-align: center;">1</td> <td style="width: 20px; height: 20px; text-align: center;">d</td> </tr> <tr> <td style="width: 20px; height: 20px; text-align: center;">c</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td style="width: 20px; height: 20px; text-align: center;">2</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>		1	d	c			2		
	1	d									
c											
2											
11	<p>If the following set of six statements is logically consistent, which ones must be true? (e.g. A, B, & D)</p> <p>A. B is True B. C is False C. A & D are True D. B & F are False E. A & B are not both True F. C & D are not both False</p>										
12	What is the measure, in degrees, of another interior angle of an isosceles triangle with one angle measuring 120 degrees?										
13	What is the sum of the numbers below that are divisible by 5? 21, 170, 59, 15, 63, 48, 60										
14	How many faces does a tetrahedron have?										
15	How many diagonals can be drawn in a convex octagon?										
16	Express the base-2 numeral 10_2 as a base-10 numeral.										
17	A triangle has sides measuring 15 m, 42 m, and x m. What is the largest possible integer value of x?										
18	What is the units (ones) digit when 46987, 22828, 90644, and 37986 are added together?										
19	What is the sum of the 16 smallest counting numbers?										
20	What is the volume, in cubic feet, of a right rectangular prism (a box) with edges measuring 6 ft, 7 ft, and 8 ft?										