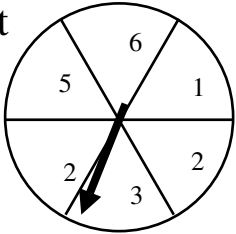


2020 Castro Valley Junior Math Tournament  
Algebra & Probability Team Test – 3rd-5th Grades

1	What number is 62 more than the product of 7 and 48?
2	What is the remainder when 31 is divided by 5?
3	When the secret number is increased by 73 and this result is divided by 8, the final result is 53. What is the secret number?
4	Evaluate: $\frac{6!}{4!}$
5	Evaluate: $8 - 6 \div 2$
6	Mariana can ride her bike at a speed of 2 miles per hour. How many miles will she ride in 2 hours?
7	A bag contains 7 purple marbles and 9 black marbles. When one marble is drawn at random, what is the probability that it is purple?
8	If $x@y = 2x + 9y$ , evaluate $19@9$ .
9	When one card is drawn from a standard 52-card deck, what is the probability that it ranks higher than a 9? Assume the Ace is the highest rank.
10	Evaluate: $-4 - -5(-7 + -3)$
11	When the spinner to the right is spun, what is the probability that it lands on 2? Assume all of the sectors are the same shape. 
12	When a single fair coin is flipped twice, what is the probability that the second flip shows heads?
13	How many days are in 2 non-leap years?
14	What value of b satisfies $5b - 96 = 14$ ?
15	Express 0.05076 in scientific notation.
16	If 4 Aardvarks are equivalent to 3 Basketballs, how many Aardvarks are equivalent to 72 Basketballs?
17	Arrange the letters below in order of <b>descending</b> value (e.g. BCDA): $A = \frac{2}{6}$ , $B = 1.1$ , $C = \frac{1}{8}$ , $D = 0.75$
18	A bag contains 6 yellow marbles and 4 green marbles. When two marbles are drawn, what is the probability that exactly 2 of them are green?
19	What is the median of the data set {4, 0, 9, 3, 8}?
20	Evaluate <b>as a mixed number</b> : $2\frac{1}{6} \div 1\frac{1}{3}$

**DO NOT TURN OVER THIS  
TEST UNTIL YOU ARE  
INSTRUCTED TO BEGIN**

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