


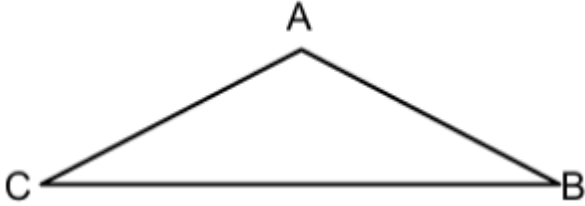


Knights of Pi Math Tournament – Dec. 20th,
2014

Speed Math 5th/6th

1	What is the slope of the line intersecting the coordinates (1,0) and (3,12)? What is the slope of the line intersecting the coordinates (1,0) and (3,12)?
2	Evaluate 26×32
3	Evaluate 2.4×6.5 , express your answer as a decimal.
4	How many lines of symmetry does a square have?
5	Find the mode of this data set: 2,4,9,2,65,3,1,6.
6	Find the range of the data set: 2,4,9,2,65,3,1,6
7	Find the median of this data set: 2,4,9,2,65,3,1,6, express your answer as a decimal
8	What is the greatest common factor of 36 and 84?
9	What is the least common multiple of 12 and 24?
10	How many seconds are in 1.4 minutes?
11	A car drives 60 mph for 5 hours, but on the return trip, it drives only 40mph. What is the car's average speed?
12	What is the sum of all possible integer lengths of the third side of a right triangle with legs of 6 and 8?
13	I roll a fair standard six sided die, what is the probability that I get a prime number?
14	What is the product of the prime numbers that are less than 10?
15	What is the least common factor of 21 and 11?
16	What is minimum possible perimeter of a triangle with integer side lengths with one side of length 6?
17	What is the 16th digit after the decimal point in the repeating decimal 0.47314731 ...?
18	What is the largest prime number that is less than 20?
19	A regular pentagon has side length 5. What is it's perimeter?
20	Take the question number, multiply it by 42, divide by 3, and divide by 7.
21	Right now it is 5:34 PM. In 49 hours and 42 minutes, what time is it? Include AM/PM in your answer.
22	This year on February 28th it is a monday. If this year isn't a leap year, what day of the week is it on December 12th?

23	I'm thinking of a two digit number. It is both a square number and a cubic number. What is my number?
24	What is the sum of the exterior angles of a square?
25	A line with slope 5 intersects the point (5,9). What is this line's Y-intercept? Express your answer as an ordered coordinate.
26	I throw a stack of 5 cards labeled 'A', 'B', 'C', 'D', and 'E' on the ground. I randomly pick them up. What is the probability that I pick them up in alphabetical order?
27	In this very strangely made city, how many ways are there to get from point A to point B if you can only move right or down? 
28	A potato synthesizing firm hires workers to make potatoes. If 5 workers can complete an order of potatoes in 7 days, what is the minimum whole number of days necessary for 3 workers to complete the same order?
29	If x cubed plus 3 equals 11, what is the value of seven x plus two x minus 8?
30	Evaluate: $10012 - 9992$.
31	Solve for x : $7x+19 = 33$
32	What is the sum of the prime factors of 2013?
33	How many factors does 100 have?
34	Evaluate: $(3! + 1!)/2!$
35	How fast is a car if it begins with a velocity of 20 m/s and accelerates at 16 m/s/s for 6 seconds?
36	Find the sum of the following infinite sequence: $2, \frac{1}{2}, 1, \frac{1}{3}, \frac{1}{2}, \frac{2}{9}, \frac{1}{4}, \frac{4}{27}, \frac{1}{8}...$
37	What a number that is both even and a prime?
38	What is the sum of interior angles of a heptagon in degrees?
39	How many one digit numbers is 84 divisible by?
40	In a right triangle, the length of the legs are 5 and 7 respectively. What is the largest integer that the length of the hypotenuse is larger than?

41	<p>In Isosceles triangle ABC, angle A is 160 degrees. What is the product of the other two angles in the triangle?</p> 
42	Joe and Phil's math teacher assigned them a project to do. If Joe can do it by himself in 6 hours, and Phil can do it by himself in 4 hours, then if they split the work 50-50, and start working on it at the same time, how long will it take them to finish?
43	How many prime numbers are there between 50 and 60?
44	A perfect number is a number whose factors sum to itself. The first perfect number is 6, as 1 plus 2 plus 3 is 6. What perfect number lies between 25 and 30?
45	What is the exterior angle of a regular nonagon in degrees?
46	Point A is outside of circle O. The lines AB and AC are tangent to circle O. If the length of AB is 5, what is the length of AC?
47	How many ways are there to choose two people to be president and vice president out of a group of 10 peasants?
48	Lewis can write 8 songs every day. For a week he writes songs. On the 3rd night of that week, Lewis gets sick and can only write 4 songs a day for the rest of the days in the week. How many songs did he produce over that week?
49	What is the least common multiple of 24 and 36?
50	A cylindrical bucket of paint has a base area of 14 units and height of 6 units. If this bucket is $\frac{2}{3}$ filled with paint, what is the volume of paint in the bucket?
51	How many degrees does the minute hand of a clock move cover 50 minutes?
52	How long does it take for the hour hand of a clock to move 15 degrees in minutes?
53	How many positive numbers that are less than 82 are divisible by 3?
54	Today it is a Monday, what day of the week is it 1982 days from now?
55	What percent of number less than 100 are divisible by 6?
56	What is the area of a triangle with side lengths 6, 8, and 10?
57	What is the volume of a cylinder with height 8 and radius 4?
58	How many ways are there to arrange the letters in the word "NEEWPRT" such that the E's are not next to each other?
59	How many prime number questions are in this speed math test?
60	How many distinct factors does 99 have?

