Math Related Questions of the Day

**General Math Questions**

What is your favorite number & why?

Would you rather have a guaranteed $100,000 or a 50/50 chance at $1,000,000?

What is your best math experience & what made it your best experience?

What is your worst math experience? How did/could you use that experience in a positive way?

How do you study for a math class?

What do you do to get “unstuck” when you get stuck on a math problem?

Where do you go for help with math?

What is your favorite thing about math & why?

What is one thing about math you want to learn? (this semester?)

What is your biggest question about math in general?

Who is your favorite mathematician & why?

If you could present a math award to anyone you know, who would it be & why?

What are your goals for this class? (fill in specific math class name?)

What is the best way to stay motivated in a math class to make sure you complete your goals?

How do you work on your math homework? (When do you start? What materials do you need? What happens during a math homework session?)

**Content/Class specific questions**

Statistics

What statistics measure the center of a data set?

What statistics measure variability or spread of a data set?

What is the most outrageous statistics related headline you have seen or heard?

What hypothesis do you most want to test?

If you could design a study about a topic of your choosing, what would it be?

Math for Elementary Ed

What math concept are you most nervous to teach?

What math concept are you most confident about teaching?

Calculus

What is a derivative?

MAT217 (Math for Business Analysis)

What is the difference between revenue and profit?

What methods can be used to solve a system of equations?

What are the different methods you can use to solve a linear programming problem?

**Riddles/Challenge Problems**

How many apples would you have if you took two apples from three apples?

If you had to swallow one pill every half hour, how much time would it take for you to swallow three pills?

Alexander is a great magician, skilled in many things. He weighs exactly 199 pounds and is about to cross a bridge with a strict weight limit of 200 pounds. The problem is he is carrying three pieces of gold, each weighing 8 ounces each. The gold puts him 8 ounces over the strict weight limit (since there are 16 ounces in 1 pound). What did Alexander do to cross the bridge safely with all three pieces of gold?

Last week a man and his wife found themselves stranded on an island along with their two sons. Luckily, they came across an old rickety boat which could carry either one adult or two children. How can the family use the boat to get all 4 people safely off the island?

Suppose you have a list of numbers from 1 to 100. Determine the quickest way you can add them all up without using a calculator.

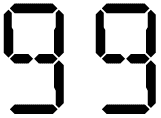
Without the aid of any measuring device, how can you use a transparent 16-ounce mug (without any measurement marks) to measure a volume of water that is exactly 8 ounces?

Three people check into a hotel. They pay $30 to the manager and go to their room. The manager suddenly remembers that the room rate is $25 and gives $5 to the bellboy to return to the people. On the way to the room the bellboy reasons that $5 would be difficult to share among three people so he pockets $2 and gives $1 to each person. Now each person paid $10 and got back $1. So they paid $9 each, totaling $27. The bellboy has $2, totaling $29. Where is the missing $1?

While you are raiding the refrigerator, you look behind the stove and discover a slice of bread that you misplaced several weeks ago. Needless to say, it is covered with mold. Since the mold started growing, the area it has covered has doubled each day. By the end of the eighth day, the entire surface of the bread is covered. When was the bread half-covered with mold?

There is a closed room with a light in it (and no way for you to see light coming from the room). Outside the room there are 3 light switches. You can turn on or off any of the switches any number of times. You can only open the door and go into the room once. You know that the light is initially off. How can you determine which light switch operates the light?

Below is a picture of the number 99, moving only two lines in the picture below, how can you turn this into 25?



Your boss has decided to change the way you get paid for the next month. She allows you to choose between the following two options for getting paid:  
  
Option A:  
You receive a lump sum payment of $7,500 for the entire month.  
  
Option B:   
You receive a penny the first work day of the month and for every work day in the month after that, she will double the payment from the previous day.   
   
 Example:  
 Work Day 1: 1 cent  
 Work Day 2: 2 cents  
 Work Day 3: 4 cents  
 (and so on)  
  
If there are 20 work days in the next month, which payment option would you select and why?

In the picture below, scales 1, 2, and 3 are perfectly balanced. How many triangles will it take to perfectly balance scale 4?

