9/1 Bill lives with his wife and three young sons on a blueberry farm. The ages of Bill's sons are three consecutive odd numbers that are also prime numbers. What is the smallest possible product of the ages of Bill's sons?

Attempts:

1	2	3	4	5

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1	2	3	4	5

9/2 An automobile dealer sells 2 models of cars, A and B.

Model A can be purchased in 7 different colours and 4 different engine sizes.

Model B comes in 8 colours and 3 engine sizes.

How many cars must the dealer order to have one car of each model in each colour and engine size?

Attempts:

1	2	3	4	5

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Attempts:

1	2	3	4	5

9/3 How many segments, each $\frac{1}{8}$ unit long, fit in the interval between $5\frac{1}{2}$ and $9\frac{1}{4}$?

Attempts:

1	2	3	4	5

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1	2	3	4	5

9/4 Albert, Benny, Charlie and Dave were working on a money making scheme together. Benny always got twice as much as Albert. Charlie always got $50 more than Benny while Dave got $220 more than Charlie. They made a total profit of $2 700. How much did Charlie receive?

Attempts:

1	2	3	4	5

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Attempts:

1	2	3	4	5

9/5 Complete the contents of this table: A=? B=?

2	3	8
16	21	58
9	17	43
5	2	A
167	B	3469

Attempts:

1	2	3	4	5
A=	A=	A=	A=	A=
B=	B=	B=	B=	B=

9/5 Complete the contents of this table: A=? B=?

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Attempts:

1	2	3	4	5
A=	A=	A=	A=	A=
B=	B=	B=	B=	B=

9/6 In a group of 12 students, the heights of the seven boys are: 160 cm, 172 cm, 158 cm, 172 cm, 180 cm, 152 cm, and 161 cm. The heights of the five girls are: 158 cm, 170 cm, 150 cm, 165 cm, and 142 cm. If a sixth girl were to join the group, what would her height need to be in order for the mean (average) heights of the boys and the girls to be equal?

Attempts:

1	2	3	4	5

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9/7 Websites often record a date such as March 19, 2005 as the 6-digit number: 050319 to represent the year, month, and day in that order.

If you subtract the 6-digit representation of July 4, 2001 from the 6-digit representation for Dec. 25, 2004, what is the result?

Attempts:

1	2	3	4	5

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Attempts:

9/8 A 100-digit number consisting of all 8's is multiplied by a 100-digit number consisting of all 9's.

What is the sum of the digits in the product?

Attempts:

1	2	3	4	5

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Attempts:

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What is the sum of the digits in the product?

Attempts:

1	2	3	4	5

9/9 What is the next row ?

```
                1
              1   1
            1   4   1
          1   10  10  1
        1   22  40  22  1
      1   46  124 124 46  1
```

Attempts:

1	2	3	4	5

9/9 What is the next row ?

```
                1
              1   1
            1   4   1
          1   10  10  1
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Attempts:

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Attempts:

1	2	3	4	5

9/10 If two cats take three days to catch five mice, how long would it take one thousand cats to catch five million mice?

Attempts:

1	2	3	4	5

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Attempts:

1	2	3	4	5

9/11 List the following numbers from smallest to largest:

A: $22\div7$ B:$355\div113$ C: π D: 1.4646^3

Attempts:

1	2	3	4	5

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A: $22\div7$ B:$355\div113$ C: π D: 1.4646^3

Attempts:

1	2	3	4	5

9/12 James wants to save for a new bicycle. He puts 5c into a jar every day for the first week, then 10c in every day on the second week, then 15c every day for the third week and so on. How much will he have in the jar after 50 weeks of saving?

Attempts:

1	2	3	4	5

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Attempts:

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9/13 A googol is the number represented by the digit 1 followed by a hundred zeros. If today is a Thursday, what day of the week will it be in a googol of days? Assume that the world will still be here.
You have only **TWO** attempts at this question.

Attempts:
1 2

		ONLY	TWO	ATTEMPTS

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1 2

		ONLY	TWO	ATTEMPTS

9/14 Suzie starts running clockwise around a large 120m by 120m square. She started at one corner. At the same time Wendy started running clockwise from the opposite corner. Suzie runs at 8km per hour and Wendy at 5km per hour. How far will Wendy have run before Susie passes her?

Attempts:

1	2	3	4	5

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Attempts:

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9/15 The cost of visiting a zoo is $5 for an adult and $3 for a child.

By the end of the day, 630 persons had visited the zoo and the revenue for the day was $2368.

How many children visited the zoo on that day?

Attempts:

1	2	3	4	5

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9/16 I have a pair of numbers. The cube root of their difference is the smallest odd prime that is not 1.
The square root of their sum is the smallest odd perfect square greater than 1.
What are the numbers?

Attempts:

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Attempts:

1	2	3	4	5

9/17 A number of children are standing in a circle. They are evenly spaced and the 8th child is directly opposite the 18th child. How many children are there altogether?

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9/18 If I travel at 45km/hr I arrive an hour late. If I travel at double that speed I arrive an hour early. How far is the return journey?

Attempts:

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Attempts:

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9/19 A block of wood in the form of a cuboid 5cm x 7cm x 14cm has all its six faces painted pink. If the wooden block is cut into 490 cubes of 1cm x 1cm x 1, how many of these smaller cubes would have pink paint on them?

Attempts:

1	2	3	4	5

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Attempts:

1	2	3	4	5

9/20 "My grandson is about as many days as my son is weeks, and my grandson is as many months as I am in years. My grandson, my son and I together are 160 years.

Can you tell me my age in years?"

Attempts:

1	2	3	4	5

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