Math On Quarterly

Math On is an annual math competition for junior high students. Created by a team of local junior high math teachers, it focuses on engaging gifted math students by challenging them to compete against each other solving word problems. It is currently in its fourth year and is growing rapidly.

The Bernoulli Family

The Bernoullis are the first family of mathematicians. Beginning with patriarch Nikolaus Bernoulli in the 1600's, the Bernoullis made significant contributions to math through the next two hundred years and six generations.

Being family doesn't make you friends though. Perhaps the most famous members of this family are brothers Jacob and Johann. Although both impressive mathematicians in their own right, the two couldn't stand each other. After coming of age together at the Basel University in Germany they became very competitive, often challenging each other publicly. After Jacob died at an early age Johann's rivalry switched to his own son Daniel. In a particularly low moment he attempted to steal credit for his sons discovery by predating his own work.

The Bernoulli family is best known for their discoveries in the fields of fluids, calculus and probability. The behaviour of the water in the picture below is an example of something that can be explained using Bernoulli math.

Mathematician of Note

Leonhard Euler (pronounced Oiler) was a Swiss mathematician in the 1700's. He is considered one of the towering figures in mathematical history and is undeniably one of the most prolific. He made important contributions to calculus, graph theory, mathematical analysis, logic and number theory. (This edition's number of the quarter, e, is known as Euler's number as it was popularized by him).

Euler lost vision in one eye at an early age (resulting in King Frederick of Germany nicknaming him Cyclops) and in both eyes in his fifties. This didn't slow him down though as he had memorized an obscene number of mathematical facts and could seemingly do math just as well in his head as on paper.

Math Quiz

1) What's bigger...a Canadian billion or a British billion?
2) What is an 'octothorpe'?
3) How many rods are there in a furlong?
4) Who is the Cartesian coordinate plane named for?
5) What are angles that add up to 180° called?

I ❤ PROBLEM SOLVING

Mr. Singh recorded the test marks for his eighth grade class of 25 students. He used the marks recorded to calculate the average to be 72. Sandra's mark of 86 was incorrectly marked as 36. What was the correct average for the test?

Last quarter's answer: 16 of the blocks will have exactly 3 red faces

Number of the Quarter

e —> often known as "Euler's number" is not as famous as it's fellow irrational number, π, but nonetheless serves a vital role in mathematics. Having a value of approximately 2.718…, e is the base of the natural logarithm. It was discovered in the 1600's by Jacob Bernoulli as he investigated problems involving compound interest. It also appears quite commonly in studies of calculus, probability and biology.

If you think dogs can't count, try putting three dog biscuits in your pocket and then only giving Fido two of them.   - Phil Pastoret

MAGIC SQUARE

Can you unlock it's secrets? Try to make one of your own!

9	6	3	16
4	15	10	5
14	1	8	11
7	12	13	2

2009 Participating Schools

Astral Drive (host)
Caledonia
Ellenvale
Eric Graves
Graham Creighton
Sir Robert Borden
Gorsebrook (host)
Bicentennial
Brookside
Eastern Passage
Highland Park
Prince Arthur
Oxford (host)
Cavalier
Cornwallis
Harold T Bennett
Ridgecliff
St Agnes
Leslie Thomas (host)
Bedford JH
Bedford South
Gaetz Brook
Musquodoboit
Sackville Heights
Sydney Mines
TL Sullivan
Malcolm Munroe
Sherwood Park Education Centre
Saint Michael
Morrison
Breton Education Centre
Whitney Pier

Congratulations to our zone champions who will be participating at this years regional championship!

Zone 1 Champion: Astral Drive Jr High
Zone 2 Champion: Brookside Jr High
Zone 3 Champion: Cornwallis Jr High
Zone 4 Champion: Leslie Thomas Jr High
Zone 5 Champion: Sherwood Park Education Centre
Wildcard Winner: Bedford South (Zone 4)

Quiz Answers

1)   A British billion = a Canadian trillion.
2)   Octothorpe is the name of this symbol: "#"
3)   There are 40 rods in a furlong. 1 rod = 16.5 feet.
4)   Rene Descartes, the French philosopher.
5)   Supplementary angles.