

Kwantlen Polytechnic University

# Mathematics Problem of the Week

Problem number 268

Posted Monday November 9, 2015

Submit by noon, Monday November 16, 2015



## Reach for the Starry Fishes

An experiment on fission reproduction of starry fishes is being performed at our local aquarium. In fission, the central disc breaks into three pieces and each portion then redevelops the missing fragments. Five newborn starry fishes were introduced in a large tank on January 1, 2015.

Assume the following conditions:

- (i) Each starry fish cannot subdivide and produce new starry fish during their first three weeks of life, but thereafter produce two new starry fish at the end of every week.
- (ii) No starry fish die during the course of this experiment.

How many starry fishes will there be at the end of fifteen weeks?

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Submit your solution by

\$ emailing it to [MathProblem@kpu.ca](mailto:MathProblem@kpu.ca)

\$ putting it in the MPOW box in the Math Assistance Centre on the Surrey campus (library, main floor)

\$ putting it in the MPOW box in The Learning Centre on the Richmond campus (located in the library)

\$ giving it to Tariq Nuruddin (Surrey A3670)

Be sure to include your name. In order to be eligible for the prize, KPU students should also include their student numbers. Winners names will be posted on the Problem of the Week web page. You can have the Problem of the Week emailed to you each week. Just go to the website and sign up.

Web site: <http://www.kpu.ca/mathematics-problem-week> .