

CONCOURSE VILLAGE ELEMENTARY SCHOOL

"SEASHELLS FOR LYDIA"

COMMON CORE LEARNING STANDARDS: 5.NF.A.2
 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

EXEMPLAR RUBRIC GRADE

PROBLEM SOLVING	COMMUNICATION	CONNECTIONS	REPRESENTATION	OVERALL LEVEL
P	P	P	P	P

5th Grade Sample

502

Date: 9/21/18

Lydia started collecting seashells when she was five years old. At age seven, Lydia had 12×10^2 seashells. At age nine, Lydia had 24×10^2 seashells. At age eleven, Lydia had 48×10^2 seashells. Lydia wants to collect 75×10^3 seashells. Lydia continues to collect seashells at the same rate. How old will Lydia be when she has 75×10^3 seashells? Show all of your mathematical thinking.

WIK

Age 7 = 12×10^2

Age 9 = 24×10^2

Age 11 = 48×10^2

Lydia's goal = 75×10^3

I will use a table and place value to solve.

75×10^3

$75 \times 1,000 = 75,000$

Age	5-7	9	11	13	15	17	19		
Seashell equation doubling	12×10^2	24×10^2	48×10^2	96×10^2	192×10^2	384×10^2	768×10^2		
total amount	1,200	2,400	4,800	9,600	19,200	38,400	76,800		

Answer

Lydia was 19 when she reached her goal

Connection

Lydia past her goal by 1,800 seashells

