

## Oceans of Math!

Every September, visitors to Nantucket, Massachusetts, flock to the dock to see the colorful fishing boats sail into the harbor. One of the most popular boats is the Valentina, the oldest boat in the fleet. It's skipper, Captain Carolyn, has been fishing the waters of Nantucket Sound for nearly 40 years!



The Valentina is a beautiful ship. She's 16 yards 2 feet long, with a bright green hull and black trim. The mainsail is a triangle shape, with a base of 16 feet and a height of 35 feet. Last year, in the fishing boat races, the Valentina ran the 2.6 mile course in 15 minutes, easily beating the competition.

Captain Carolyn is an old salt. You can see her at the wheel, (which has a radius of 2 feet), her eye on the horizon, looking for fish. She chomps on her pipe, squints into the sun, and says, "Arrr. The fish are out there today, mateys."

Just last week, the Valentina brought in  $1\frac{2}{3}$  tons of cod and  $3\frac{5}{8}$  tons of haddock. It was the largest catch of the year. The wholesale price (the price the market pays) for cod is \$4.27 per pound, so for Captain Carolyn, it was a great week.

Jackson is the first mate of the Valentina. He hauls the lines with the strength of ten men! Sometimes Jackson teases Captain Carolyn about her beard.

"Stop pokin' fun at me beard," growls Captain Carolyn, "or I'll have to keel haul ye!"

Of course that just makes Jackson tease her more...

1. How many feet long is the Valentina?
2. How fast (miles per hour) did the Valentina travel in the race?  
Hint: how many 15 minutes are in an hour?
3. What is the circumference of the Valentina's wheel?
4. What was the combined catch of cod and haddock last week?
5. How much did the market pay for Captain Carol's total catch of cod (just the cod!)?
6. What is the area of the mainsail of the Valentina?

There are 3 feet in a yard... There are 60 minutes in an hour... There are 2000 pounds in a ton....