# Minesweeper Math Sample Problems

USS *Swerve* Routes and Distances During World War II

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|---|---|
| Naples to Palermo: | 440 miles |
| Palermo to Bizerte: | 200 miles |
| Bizerte to Naples: | 340 miles |
| Naples to Anzio: | 100 miles |
| Anzio to Malta: | 400 miles |
| Malta to Anzio: | 400 miles |

Speed: Auk-class minesweepers like the USS *Swerve* can travel at 20 miles per hour.

Map Scale: Students will calculate scale using a ruler and the map. The scale should calculate to 0.5 inches/100 miles.

## Sample Problem One:

Measure the distance from Palermo, Italy to Bizerte, Tunisia using the ruler provided. Using the scale provided (0.5 inches/100 miles). Calculate the actual distance from Palermo, Italy to Bizerte, Tunisia.

Step 1: Set up problem using ratios and the scale provided.

$$\frac{0.5\ in.}{100\ miles} = \frac{1\ in.}{x\ miles}$$

Step 2: Cross multiply to create equation.

$$0.5x = 100\ miles$$

Step 3: Solve.

$$\frac{0.5x}{0.5} = \frac{100\ miles}{0.5}$$

$$x = 200\ miles$$

**Answer:** The distance from Palermo, Italy to Bizerte, Tunisia is 200 miles.

# Minesweeper Math Sample Problems cont.

## Sample Problem Two:

Using the known speed of Auk-class minesweepers, like the USS *Swerve*, calculate how long it would take to travel from Palermo, Italy to Bizerte, Tunisia.

Step 1: Set up problems using ratios.

$$\frac{20\ miles}{1\ hour} = \frac{200\ miles}{x\ hours}$$

Step 2: Cross multiply to create equation.

$$20x = 200\ miles$$

Step 3: Solve.

$$\frac{20x}{20} = \frac{200\ miles}{20}$$

$$x = 10$$

**Answer:** It would take the USS *Swerve* 10 hours to travel from Palermo, Italy to Bizerte, Tunisia.