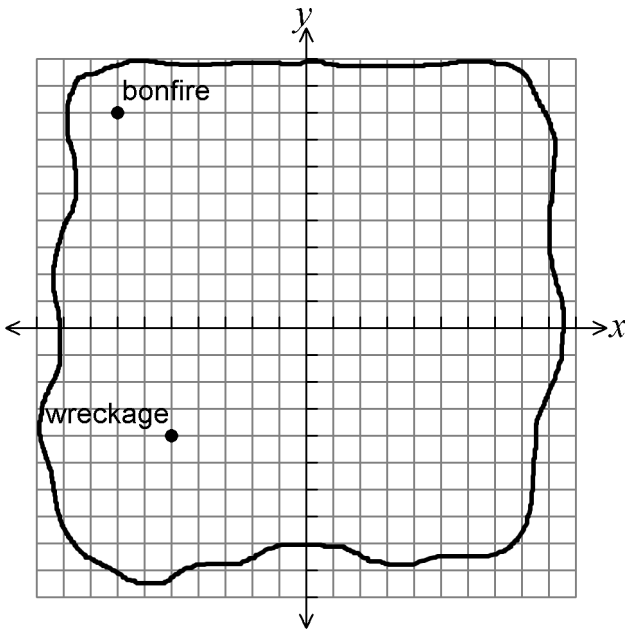
BRYANT SCHOOL DISTRICT Name _____
Open-Response / Grade 8 / Module 2
Assessment ID: 144025 Teacher _____ Period _____

MATH OPEN-RESPONSE ITEM A

A. A large shrimp boat was tossed about by a storm. The fishing crew aboard the boat were thrown into the sea and had to swim to safety. The fisherman swam to a nearby deserted island. A map of the island is shown below.



Once the boat wreckage washed ashore at Point A, the crewmembers rummaged through it to find supplies and tools to help them survive. A shelter was built on the island, but the crew had to return to the wreckage several times to collect more supplies in order to complete it. A path between the shelter and wreckage can be represented by $y = \frac{3}{5}x - 1$.

The crewmembers proceeded to build a bonfire at Point B so that the Coast Guard or rescue planes could find them more easily. A second path created from the shelter to the bonfire can be represented by the equation $-\frac{1}{2}x + 4\frac{1}{2} = y$.

1. Determine the location of the shelter algebraically. Show or explain all your work even if you use mental math or a calculator.
2. Graph the equations on the grid provided in your Student Answer Document. Be sure to label each line with its correct equation.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

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Assessment Reference Sheet

Grade 8

1 inch = 2.54 centimeters
1 meter = 39.37 inches
1 mile = 5,280 feet
1 mile = 1,760 yards
1 mile = 1.609 kilometers

1 kilometer = 0.62 mile
1 pound = 16 ounces
1 pound = 0.454 kilogram
1 kilogram = 2.2 pounds
1 ton = 2,000 pounds

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 gallon = 3.785 liters
1 liter = 0.264 gallons
1 liter = 1,000 cubic centimeters

Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$
Circle	$C = \pi d$ or $C = 2\pi r$
General Prisms	$V = Bh$
Cylinder	$V = \pi r^2 h$
Sphere	$V = \frac{4}{3}\pi r^3$
Cone	$V = \frac{1}{3}\pi r^2 h$
Pythagorean Theorem	$a^2 + b^2 = c^2$