



STUDENT COMPANION

NAME: _____

Pirates of the Pythagorean- The Legend of Davy Drake



☠️ HERE IS YE FIRST TASK ☠️

Determine if the following right triangles (a-f) are Pythagorean Triples. Explain the process you utilized to determine if the right triangles are Pythagorean Triples.

- (a) 3, 4, 5
- (b) 6, 8, 10
- (c) 5, 12, 13
- (d) 7, 24, 25
- (e) 10, 24, 26
- (f) 9, 12, 15

A large, empty rectangular box with a blue border, intended for students to show their work or explain their process.



HERE IS YE SECOND TASK

You are a member of Davy Drake's crew and he constructs a right triangle using three squares on the deck of the Deceit of the Sea. You calculate the area of the square off the hypotenuse and ascertain 130 square feet.

- If the square of the hypotenuse of the right triangle is 130 square feet, will the length of the hypotenuse be a whole number? Explain why or why not?

A large, empty rectangular box with a thin blue border, intended for a student to draw a diagram or write their explanation.

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EXTEND YOUR THINKING 2: “HERE IS YE SECOND TASK” continued

- If the square of the hypotenuse is 130 square feet, what would be the length of the hypotenuse? Explain how you ascertained the hypotenuse of the right triangle.

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EXTEND YOUR THINKING 2: “HERE IS YE SECOND TASK” continued

- **Determine the lengths of the right triangle constructed on the deck of The Deceit. Explain how you determined the lengths of the legs.**

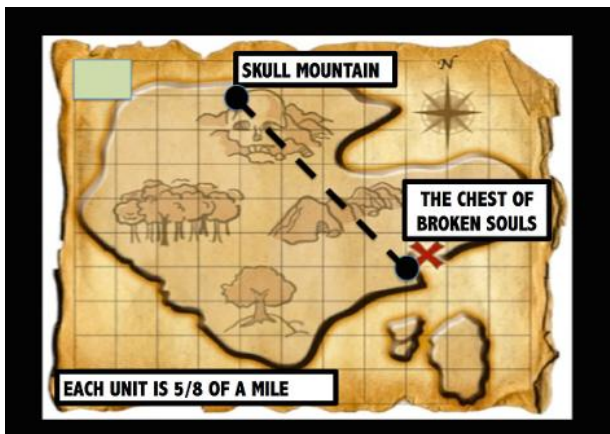
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- Utilizing a Geometry application, construct a diagram that proves the area of the square on the hypotenuse is 130 square feet. Show all computational strategies.

Extend
3
Your Thinking

HERE IS YE THIRD TASK

Calculate the distance from Skull Mountain to the Chest of Broken Souls. Explain how you ascertained this distance.

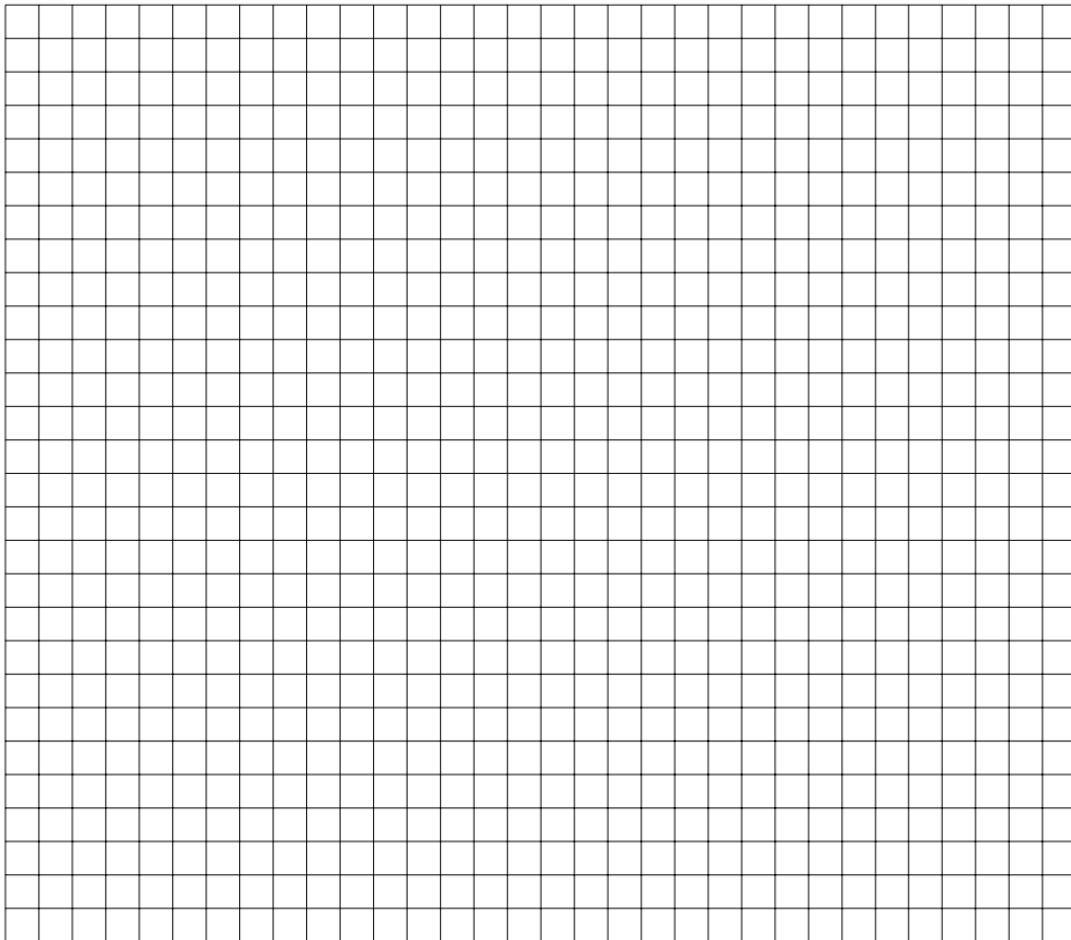




THE LEGEND OF DAVY DRAKE

HIGHER ORDER THINKING QUESTIONS

(H.O.T. Level 1): Explain how you can use the Pythagorean Theorem to find the distance between $(-6, 3)$ and $(5, 4)$ on a coordinate grid.



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(H.O.T. Level 2): The following triangle is a right triangle: 120 cm, 160 cm, 200 cm. How could you verify this statement? Develop an argument to prove this statement true.

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(H.O.T. Level 3): Create two strategies that you could use to find Pythagorean Triples. Which method do you prefer and why?

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