Think e Matics

STUDENT COMPANION

NAME:_____

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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

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Extend 2 Your Thinking

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?**

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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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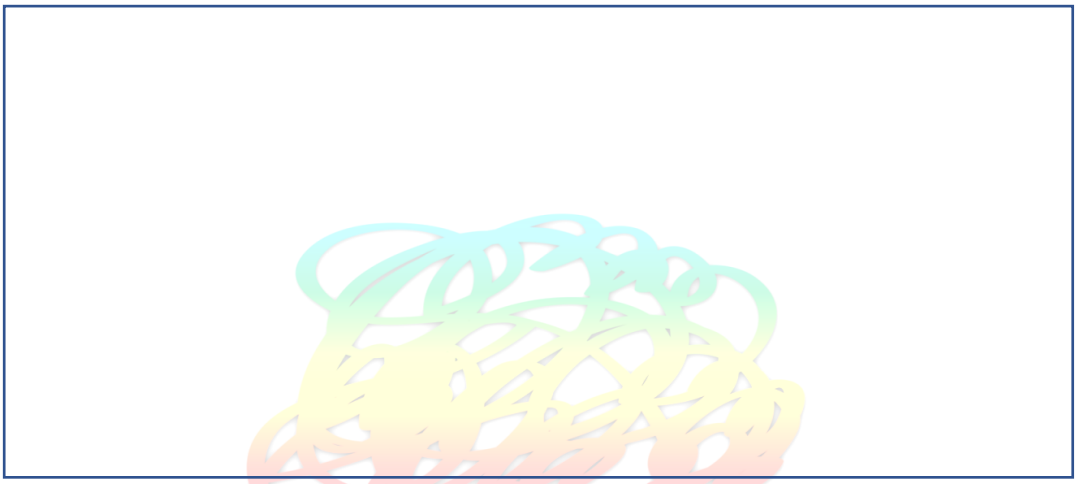
EXTEND YOUR THINKING 2: "HERE IS YE SECOND TASK" continued

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



- **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.**

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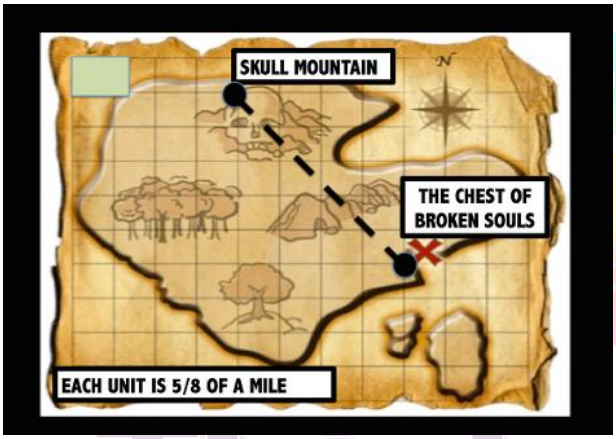
Extend 3 Your Thinking

HERE IS YE THIRD TASK

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



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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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