

Name: _____

Date: _____

Class: _____

MYTHICAL MATH

In Greek mythology, what was the name of the winged horse?

Solve each linear system by using the linear-combination method. Write each exercise number above its corresponding answer in the grid. To spell out the puzzler answer, write on each numbered line the code letter that corresponds to the given exercise number.



Tip: The following example shows how to solve linear systems through **linear combination**.

$$\begin{array}{r} 2x + y = -2 \\ -x + y = 1 \end{array} \rightarrow \begin{array}{r} 2x + y = -2 \\ (2)(-x + y = 1) \rightarrow -2x + 2y = 2 \\ \hline y = 0 \end{array} \rightarrow y = 0; \text{ and } 2x + (0) = -2 \rightarrow x = -1$$

1. $-3x - 7y = 2$
 $x + 3y = -2$

5. $-5x - 4y = -22$
 $5x - 6y = -8$

2. $6x - y = -9$
 $-3x + 5y = 18$

6. $-x - y = -2$
 $4x + 7y = 11$

3. $-7x + 8y = -2$
 $x + 3y = -8$

7. $-7x + 9y = 3$
 $6x - 4y = 16$

4. $-x + 11y = 3$
 $-x + y = -7$

8. $2x - 3y = -11$
 $-3x + 4y = 16$

Code Letter	A	E	G	I	N	P	S	U
Exercise #								
Answer	(-4, 1)	(8, 1)	(4, -2)	(1, 1)	(6, 5)	(-2, -2)	(2, 3)	(-1, 3)

Answer:

3 4 1 8 5 2 5