

Name: \_\_\_\_\_

- 1 An addition table for a subset of real numbers is shown below. Which number is the identity element? Explain your answer.

060224a

+	0	1	2	3
0	0	1	2	3
1	1	2	3	4
2	2	3	4	0
3	3	4	0	1

- 2 The operation element @ is determined by the following table:

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@	a	b	c
a	a	b	c
b	b	c	a
c	c	a	b

What is the identity element of this operation?

- (1) a, only (3) c  
 (2) b, only (4) a and b

- 3 What is the identity element for ♣ in the accompanying table?

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♣	r	s	t	u
r	t	r	u	s
s	r	s	t	u
t	u	t	s	r
u	s	u	r	t

- (1) r (3) t  
 (2) s (4) u

- 4 In the addition table for a subset of real numbers shown below, which number is the inverse of 3? Explain your answer.

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⊕	1	2	3	4
1	2	3	4	1
2	3	4	1	2
3	4	1	2	3
4	1	2	3	4