

# Properties of Addition Worksheet

Commutative Property	Numbers can be added in any order $a + b = b + a$ $4 + 3 = 3 + 4 = 7$
Associative Property	Numbers in group can be added in any combination $(a + b) + c = a + (b + c)$ $(1 + 2) + 3 = 1 + (2 + 3) = 6$
Identity Property	The sum of zero and any number is the number $a + 0 = a$ $2 + 0 = 2$
Inverse Property	A number added to its negative gives zero $a + (-a) = 0$

A) Identify the property of additions for each.

①  $7 + 3 = 3 + 7$  \_\_\_\_\_

②  $8 + (-8) = 0$  \_\_\_\_\_

③  $4 + 0 = 4$  \_\_\_\_\_

④  $(9 + 3) + 6 = 9 + (3 + 6)$  \_\_\_\_\_

B) Write the answers and the addition properties for the following:

①  $9 + 0 =$  \_\_\_\_\_

②  $3 + 12 =$  \_\_\_\_\_

③  $0 + 13 =$  \_\_\_\_\_

④  $18 + 3 =$  \_\_\_\_\_

⑤  $10 + (-10) =$  \_\_\_\_\_

⑥  $(15 + 2) + 1 =$  \_\_\_\_\_

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## Answers

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A) Identify the property of additions for each.

- ①  $7 + 3 = 3 + 7$  Commutative
- ②  $8 + (-8) = 0$  Inverse
- ③  $4 + 0 = 4$  Identity
- ④  $(9 + 3) + 6 = 9 + (3 + 6)$  Associative

B) Write the answers and the addition properties for the following:

- ①  $9 + 0 =$  9, Identity
- ②  $3 + 12 =$   $12 + 3 = 15$ , Commutative
- ③  $0 + 13 =$  13, Identity
- ④  $18 + 3 =$   $3 + 18 = 21$ , Commutative
- ⑤  $10 + (-10) =$  0, Inverse
- ⑥  $(15 + 2) + 1 =$   $15 + (2 + 1) = 18$ , Associative