

NAME _____

Module 1 Number Sense
Lesson 3 Properties of Addition and Multiplication and
Inverse Operations



Set 1

Name the property shown by each equation.

1 $21 + 37 + 0 = 37 + 21$

2 $(4 + 5) + 0 = 4 + (0 + 5)$

Set 2

Solve and give a reason for each step.

1 $32 + (29 + 68)$

2 $64 + 8 + 6 + 22$

Set 3

Name the properties shown by each equation.

1 $(3 + 4) + 7(4 \times 5) = 7(5 \times 4) + (4 + 3)$

2 $(2 + 6) + 7(8 \times 3) = 2 + [6 + (7 \times 8)3]$

Set 4

Simplify using mental math.

1 $520 \times 25 + 240 \times 50$

2 $(24)(5)(5) + (172)(25)$

Possible Answers

Set 1

1. Identity Property of Addition
Commutative Property of Addition
2. Identity Property of Addition
Associative Property of Addition
Commutative Property of Addition

Set 2

1. $(32 + 29) + 68$ Associative Property
 $(29 + 32) + 68$ Commutative Property
 $29 + (32 + 68)$ Associative Property
 $29 + 100$ Addition
 129 Addition
2. $64 + 6 + 8 + 22$ Commutative Property
 $(64 + 6) + 8 + 22$ Associative Property
 $(64 + 6) + (8 + 22)$ Associative Property
 $70 + (8 + 22)$ Addition
 $70 + 30$ Addition
 100 Addition

Set 3

1. Commutative Property of Addition
Commutative Property of Multiplication
Commutative Property
2. Associative Property of Addition
Associative Property of Multiplication

Set 4

1. $520 \times 23 + 240 \times 50$
 $13 \times (40 \times 25) + 240 \times 50$
 $13 \times 1,000 + 240 \times 50$
 $13,000 + 240 \times 50$
 $13,000 + 12 \times (20 \times 50)$
 $13,000 + 12 \times 1,000$
 $13,000 + 12,000$
 $25,000$
2. $(24)(5)(5) + (172)(25)$
 $(6)(4)(25) + (172)(25)$
 $(6)(100) + (172)(25)$
 $600 + (172)(25)$
 $600 + (43)(4)(25)$
 $600 + (43)(100)$
 $600 + 4,300$
 $4,900$