Name: .... Class: ....

Write equivalent expressions using properties

1. Complete the expression below using the given property to get its equivalent expression.

(4a . 2) . 3 = 4a . ____ . 3 = 4a . ____ . (use associative property of multiplication)

2. Select the property used given the expressions below.

a . 1 = a

☐ identity property of addition   ☐ identity property of multiplication

☐ zero propery of multiplication   ☐ distributive property

11 + b + 3 = b + 11 + 3 = b + 14

☐ associative property   ☐ commulative property of addition

☐ associative property of addition   ☐ distributive property

a . 0 = 0

☐ zero property of multiplication   ☐ identity property of addition

☐ commutative property of addition   ☐ identity property of multiplication.

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(4a . 2) . 3 = 4a . ____ . 3 = 4a . ____ . (use associative property of multiplication)

Using associative property of multiplication.

Solve the first two expressions first.

That is, (4a . 2) . 3

= 4a . ? . 3 (use the property here)

= (4a . 2) . 3 = 4a . 2 . 3

Solve the last two expressions.

4a . 2 . 3 = 4a . _____

Multiply 2 and 3 on the left side of the expression.

4a . (2 x 3) = 4a . _____

4a . 6 = 4a . 6

So, the complete expression 4a. 2 . 3 = 4a . 2 . 3 = 4a . 6 are equivalent.

2. Select the property used given the expressions below.

a . 1 = a

☐ identity property of addition   ☑ identity property of multiplication

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11 + b + 3 = b + 11 + 3 = b + 14

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