The student will apply the following properties of operations with real numbers:

a) the commutative and associative properties for addition and multiplication;
b) the distributive property;
c) the additive and multiplicative identity properties;
d) the additive and multiplicative inverse properties; and

e) the multiplicative property of zero.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td><strong>1</strong> What number should be placed in the blank to make the following equation true?</td>
<td>$\frac{1}{6}x\underline{\quad} = 1$</td>
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| **2** Which property says that a 10 foot by 4 foot rectangle has the same area as a 4 foot by 10 foot rectangle? | A) Associative property of multiplication  
B) Identity property of multiplication  
C) Commutative property of multiplication  
D) Distributive property |
| **3** Match the equation to its property. | 21 + 0 = 21  
63 + (-63) = 0  
29 + (-4) = (-4) + 29  
(18) + (-2 + 3) = (18 + -2) = (3)  
| Identity Property of Addition  
Commutative Property of Addition  
Additive Inverse Property  
Associative Property of Addition |
| **4** Circle all the equations that illustrate the zero property of multiplication. | $\frac{1}{3} \times 3 - 3 = 4$  
$\frac{1}{2} + 2 - 2 = \frac{1}{2} + 0$  
$0 \times 9 \times \frac{1}{9} = 0$  
$-5 + 5 + 0 = 0$  
$4 + 3(0) = 4$  
$\frac{1}{3}(9 + 3) = 3 + 1$ |
| **5** Jane is simplifying the following expression. Write the property she used on the line to the right for this first step. | $2\left(\frac{1}{2}\right) + 3 \times 0 + 4(-2 + 6)$  
$2\left(\frac{1}{2}\right) + 3 \times 0 + -8 + 24$  
|
| **6** Write the numbers on the spaces to complete this statement of the Associative Property. | $16 \times (24 \times 15) = (\underline{\quad} \times \underline{\quad}) \times \underline{\quad}$ |