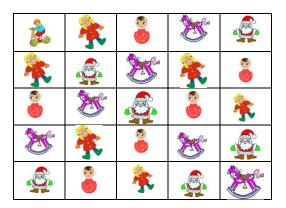
Binary Operations - Independent Practice Worksheet

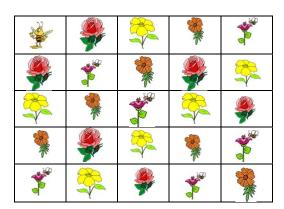
Complete all the problems.



- 1. Is this operation commutative?
- 2. Name the identity element, or explain why none exists.
- 3. For each element having an inverse, name the element and its inverse.

	М	0	S	Т
M	Т	S	0	М
Ο	S	М	Т	0
S	Ο	Т	М	S
Т	М	0	S	Т

- 4. Is this operation commutative?
- 5. Name the identity element, or explain why none exists.
- 6. For each element having an inverse, name the element and its inverse.
- 7. True or False
- $M \stackrel{\bullet}{\square} (O \stackrel{\bullet}{\square} S) = S \stackrel{\bullet}{\square} (O \stackrel{\bullet}{\square} S)$



- 8. Is this operation commutative?
- 9. Name the identity element, or explain why none exists.
- 10. For each element having an inverse, name the element and its inverse.