

7-5: Determine Outcomes of Compound Events

- Sample answer: You can make an organized list, a table, or a tree diagram.
- Yes; The displays are different ways of showing the same sample space.
- No; The number of outcomes in the sample space of this compound event will be the same, regardless of the order in which the events are listed. The tree diagram will show 48 outcomes, no matter what Shari starts with.

4.

	1	2	3
R	R1	R2	R3
G	G1	G2	G3
B	B1	B2	B3

5. X - 1
- 2

Y - 1
- 2

Z - 1
- 2

6. a; e; i; o; u
a; e; i; o; u

10 possible outcomes

7. S1 S1 S1
S2 S2 S2
S3 S3 S3
S4 S4 S4

12 possible outcomes

8. a.

	Loaf	Rolls
Wheat	Wheat, Loaf	Wheat, Rolls
Multigrain	Multigrain, Loaf	Multigrain, Rolls
Rye	Rye, Loaf	Rye, Rolls
Oat	Oat, Loaf	Oat, Rolls

b. 8

9. Sample answer: The product of the numbers of possible outcomes of each single event is equal to the number of possible outcomes of the compound event.

10. Sample answer: (A,1), (A,2), (A,3), (B,1), (B,2), (B,3), (C,1), (C,2), (C,3), (D,1), (D,2), (D,3)

11. (K,K), (K,L), (K,W), (L,K), (L,L), (L,W), (W,K), (W,L), (W,W)

12. (S,R), (S,W), (S,B), (M,R), (M,W), (M,B), (L,R), (L,W), (L,B)

13. Yes; Sample answer: You can make a tree diagram with each subject at the top and the numbers 1 through 6 as the branches. You can also make a tree diagram with the numbers 1 through 6 at the top and each subject as a branch. Both ways provide the same number of outcomes, 18.

14. A, B, D

15. B, D