

5.2 Organize Outcomes

MathLinks 7, pages 165-170

Answer Key!

Key Ideas Review

Choose from the following terms to complete #1 and #2.

dependent independent other diagrams sample space tables tree diagrams

1. Complete the statement.

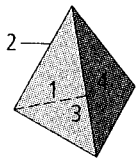
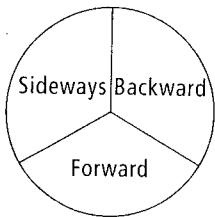
Two events are Independent if the outcome of one event has no effect on the outcome of the other event.

2. To organize outcomes for two independent events, you can create

a) Tables; b) tree diagrams; c) other diagrams

Practise and Apply

3. Dylan spins the spinner and rolls the die to move ahead in the game she is playing.



a) Organize the outcomes of these two events in a table.

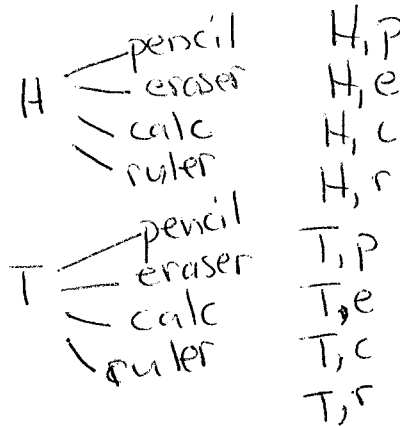
Spin	Die			
	1	2	3	4
S	S, 1	S, 2	S, 3	S, 4
B	B, 1	B, 2	B, 3	B, 4
F	F, 1	F, 2	F, 3	F, 4

b) What is the sample space for these two events?

(S, 1) (S, 2) (S, 3) (S, 4)
 (B, 1) (B, 2) (B, 3) (B, 4)
 (F, 1) (F, 2) (F, 3) (F, 4)

4. Alianna flips a coin and chooses one of four types of school supplies: pencil (p), eraser (e), calculator (c), or ruler (r).

a) Draw a tree diagram to organize the possible outcomes of these two events.



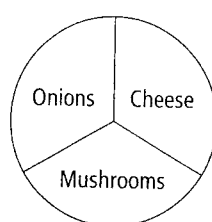
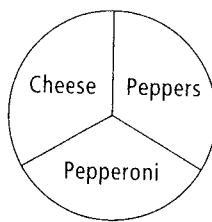
b) What is the sample space for these two events?

(H, p) (H, e) (H, c) (H, r)
 (T, p) (T, e) (T, c) (T, r)

Name: Key 2/2

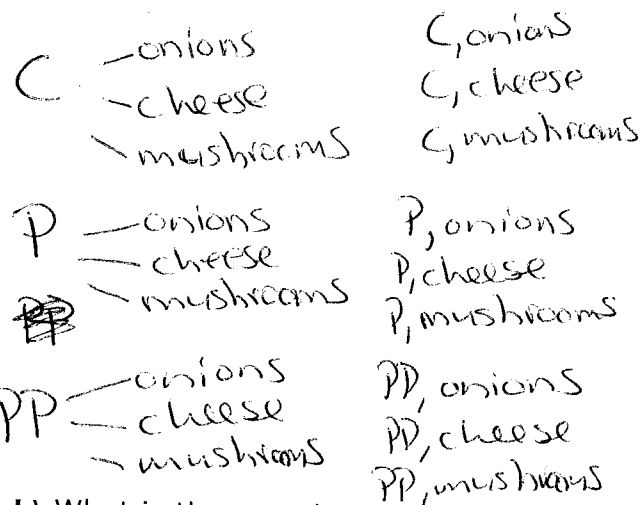
Date: _____

5. Pete spins two spinners to choose toppings for his pizza.



a) Create a tree diagram or table to show all the possible combinations for two-topping pizzas.

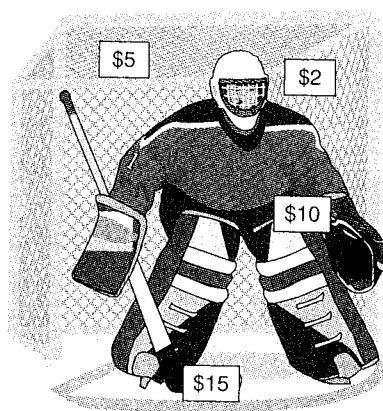
Cheese - C
Peppers - P
Pepperoni - PP



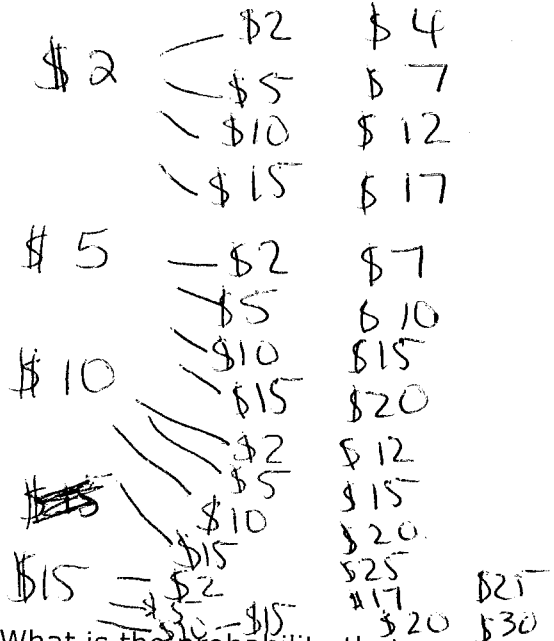
b) What is the sample space?

(C, onions), (C, cheese), (C, mushrooms)
(P, onions), (P, cheese), (P, mushrooms)
(PP, onions), (PP, cheese), (PP, mushrooms)

6. Sanjay is shooting a puck at the net to win a prize.



a) Sanjay shoots two pucks at the net. Create a tree diagram to show the sample space, assuming that he does not miss either shot.



b) What is the probability that Sanjay will win an even amount of money after two shots?

An even amount such as \$4, 12, 10, 20, 30, etc.

$\frac{8}{16}$

$\frac{8}{16} = \frac{1}{2}$