



# ***New York State Testing Program***

## **Mathematics Test**

Grade **7**

**2009 Scoring Guide**

**31**

Erin wants to make a sandwich from the main ingredients shown in the table below.

<b>Bread</b>	<b>Main Ingredient</b>
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

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**QUESTION 31**

**STRAND 5: STATISTICS AND PROBABILITY**

*Complete and Correct Response:*

- S with P, S with H, S with T, S with E  
W with P, W with H, W with T, W with E  
R with P, R with H, R with T, R with E  
OR other valid response

*Score Points:*

Apply 2-point holistic rubric.

**31** Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

SP                      WP                      RP  
SH                      WH                      RH  
ST                      WT                      RT  
SE                      WE                      RE

12 combinations

This response is complete and correct.

Score Point 2

31

Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

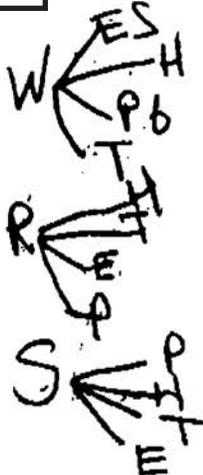
On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Erin can make 12 different sandwiches: Sourdough with peanut butter, Ham, turkey, or egg salad. Wheat with peanut butter, Ham, turkey, or egg salad. Rye with peanut butter, Ham, turkey, or egg salad.  $4 \times 3 = 12$ .

This response is complete and correct.

Score Point 2

31 Erin wants to make a sandwich from the main ingredients shown in the table below.



Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

$$\begin{array}{r} 3 \\ \times 4 \\ \hline 12 \end{array}$$

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Erin has 12 ways to make a sandwich by using one type of bread and 1 ingredient.

This response is only partially correct. The correct number of possibilities is determined; however, the combinations are not listed. The work shown cannot be scored. Refer to Scoring Policy number 1.

Score Point 1

**31** Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Sourdough	Wheat	Rye
peanut butter	egg salad	Ham
Ham	turkey	peanut but
Turkey	peanut butter	egg salad
egg salad	Ham	turkey

This response is only partially incorrect. Although the work shown demonstrates a sound mathematical procedure for determining the possible outcomes, the table is not sufficiently clear. The addition of lines under the bread choices would have demonstrated a thorough understanding.

**Score Point 1**

31

Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Erin can make one of sourdough and peanut butter, wheat and ham Rye and Turkey or Egg salad.

This response is incorrect. Four correct combinations listed using different types of bread are not enough to demonstrate even a limited understanding of the task.

Score Point 0



# ***New York State Testing Program***

## **Mathematics Test**

Grade **7**

**2009 Practice Set**

31

Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Bread  
 3

Main Ingredient  
 4

12 possible outcomes

S-P, S-H, S-T, S-E,  
 W-P, W-H, W-T, W-E,  
 R-P, R-H, R-T, R-E

**31** Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

1) (S), (P), (H), (T), (E)

2) (W), (P), (H), (T), (E)

3) (R), (P), (H), (T), (E)

31

Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

He could make S with P, H, T, E  
Also he can make W with P, H, T, E  
Then he could make R with P, H, T, E.

**31**

Erin wants to make a sandwich from the main ingredients shown in the table below.

Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

SP, SH ST SE  
 WP WH WT WE  
 RP RH RT RE  
 PS PW PR  
 HW HS HR  
 TS TW TR  
 ES EW ER

31 Erin wants to make a sandwich from the main ingredients shown in the table below.

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Bread	Main Ingredient
Sourdough (S)	Peanut butter (P)
Wheat (W)	Ham (H)
Rye (R)	Turkey (T)
	Egg salad (E)

On the lines below, list all the possible ways Erin can make a sandwich using one type of bread and one main ingredient.

Sourdough, Peanut butter

Sourdough, ham

Sourdough, Turkey

Sourdough, egg salad

# 7<sup>th</sup> GRADE MATHEMATICS

Name: \_\_\_\_\_

## PRACTICE SET ANSWER KEY

PS 1	(0-2)	
PS 2	(0-2)	
PS 3	(0-2)	
PS 4	(0-2)	
PS 5	(0-2)	
PS 6	(0-2)	
PS 7	(0-2)	
PS 8	(0-2)	
PS 9	(0-2)	
PS 10	(0-2)	
PS 11	(0-2)	
PS 12	(0-2)	
PS 13	(0-2)	
PS 14	(0-2)	
PS 15	(0-2)	
PS 16	(0-2)	
PS 17	(0-2)	
PS 18	(0-2)	
PS 19	(0-2)	
PS 20	(0-2)	

PS 21	(0-3)	
PS 22	(0-3)	
PS 23	(0-3)	
PS 24	(0-3)	
PS 25	(0-3)	
PS 26	(0-3)	
PS 27	(0-3)	
PS 28	(0-3)	
PS 29	(0-3)	
PS 30	(0-3)	
PS 31	(0-3)	
PS 32	(0-3)	
PS 33	(0-3)	
PS 34	(0-3)	
PS 35	(0-3)	
PS 36	(0-3)	
PS 37	(0-3)	
PS 38	(0-3)	
PS 39	(0-3)	
PS 40	(0-3)	